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Rural Development
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RURAL DEVELOPMENT AND SOCIAL CHANGE

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Rural Development and Social Change

An Experiment in Non-Formal Education

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J. M. HEREDERO

With the collaboration of

P. T. Contractor

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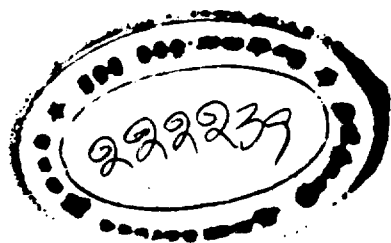
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Introduction

This book is about a field experience in rural education. Back in 1969 a team of college professors decided to test McClelland's theory of Achievement Motivation with farmers in Gujarat. This academic endeavour led us to a transforming human experience—personal contact with small farmers in the villages. We are not sure how much we taught during the first years, but we surely learnt much about village life and its values and the meaninglessness of some of our assumptions. As our ability to communicate with the peasants improved, we came closer to them and soon they were talking to us of their real needs and personal difficulties. We felt that we were accepted by them not so much as teachers or *sahibs* but as persons and brothers. This was an experience.

The newly gained knowledge led us to the conclusion that development means something more than economic progress because it has to do more with persons than with things. Therefore, if economists, agricultural experts, engineers and other professionals have a vital role to play in rural development, educators (who deal with persons) cannot disclaim responsibility in this task, because they, too, have a role to play in it.

In carrying out this responsibility we have developed a system of teaching which is intensive (eight hours of training a day) and aims at promoting the growth of the whole man in his community. Because we aim to develop a real community, we do not train individuals but groups of about thirty representative people from the same village and caste. The courses are also need-oriented taking into consideration the needs of the participants as perceived by us, hoping that our perception is not too far off the mark.

This book covers our experiences in giving this training to small farmers in Gujarat during four years. The experience has made us reflect not only on our trainees and their society but also on more fundamental issues like the meaning of development and the effectiveness of developmental work.

Taking for granted the need for formal or traditional education, we go on to stress the need to have another type

of education as well which trains rural people to function as better human beings, as members of their community and as farmers. This education need not teach grammar, geography or mathematics, it need not even teach how to read and write. It has to do something far more difficult, it has to lead people to greater awareness and reflection which in turn leads them to creative thinking.

The matter has been arranged in seven chapters. The aim of Chapter I is to put into focus our educational approach by comparing it with other possible approaches to rural development. Chapter II explains the way we perceive our trainees together with our assumptions about them and their society. Chapter III traces the history of our work and the evolution of our thought on education and development. Our understanding of development, the objectives and method of our teaching are explained in Chapter IV. All this is illustrated in Chapter V with a detailed account of three courses given by us. As for the practical results of our training, Chapter VI explains how former participants have fared after the courses and the steps taken by us to consolidate our work. Chapter VII is a tentative study of the economic impact of our training. When speaking about our experience, sooner or later the inevitable question is raised: "What about the results?" People are so result-oriented that I am afraid not a few will skip the other chapters and go straight to Chapter VII. They may be disappointed; their attitude will certainly disappoint us.

Education of farmers must necessarily take into account agricultural technology. There is a vast literature on the diffusion of agricultural innovations in India and the Conclusion relates our work to the existing literature on the subject.

The ideas and methodology put forward here have been shaped, to a very large extent, by our experience. This is their strength and limitation. They are not armchair philosophy. But, are they equally applicable elsewhere? All that we hope and pray is that our experience may help others in their search for a more meaningful service of others.

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Contents

<i>Acknowledgements</i>	<i>v</i>
<i>Introduction</i>	<i>vii</i>
1. Non-formal Education and Rural Development	1
2. The Participants	20
3. The Process: Reflections on Early Training Courses	44
4. Training for Development	68
5. Training Adivasis and Scheduled Castes	78
6. Follow-up	96
7. Towards an Evaluation	113
8. Conclusion	
<i>Appendix</i>	149
<i>Bibliography</i>	175
<i>Index</i>	182

Non-formal Education and Rural Development

Much is spoken of and written about development nowadays. The world itself has been divided, according to this key word, into developed and developing nations. Oftener than not development is spoken of in economic terms only. But economic inequalities which divide the world lead to political, moral and social consequences, and development rightly speaking should take all these consequences into account. And just as there are inequalities between the developed and the developing nations, there are inequalities between the urban and the rural societies. Most medical facilities, the best educational institutions, and almost all the big industries are located in big urban areas. The differences in standards of living between the cities and villages in India are glaring enough: unemployment and under-employment, indebtedness and exorbitant rates of interest; inadequate protection or insurance against natural calamities like recurrent droughts and floods; poor agricultural technology resulting in low productivity which for the majority of the rural population means utter poverty with all its concomitants, that is, poor hygienic conditions, malnutrition, illiteracy, and factional rivalries which make cooperation very difficult, if not impossible.

The prevailing unemployment has been exploited by the rich land-owning classes to pay inhuman wages to the poorer

sections. Compared to mill-workers, agricultural labour receives a very raw deal: a three-rupee daily wage has been a standard practice. But examples of even lower wages are not uncommon.

Another area where unequal distribution is very striking is in the health services. It is calculated that 75 per cent of the resources available for medical care (and this includes both government and non-government resources) are utilised for 25 per cent of the population, residing mainly in urban areas.

As opposed to medical services, one would think that educational services are better looked after in the villages. And one could argue that almost every village has a primary school, with a high school within a reasonable distance. This is in sharp contrast to the absence of medical practitioners and hospitals in the same areas. But, if one looks at the type of education imparted in those schools, the picture changes radically. For this education is hardly relevant to the needs of the villages and even after years of schooling the students are hardly able to cope with the problems of the rural areas. Further, this education to some extent is alienating in its effect as it prepares the students for a life that does not exist in the villages.

The problem can be looked at from another angle. While industry is well served by our educational institutions, agriculture is grossly neglected. In Gujarat, for instance, there are five engineering colleges offering degrees in civil, electrical and mechanical engineering. There are two more engineering colleges offering degrees in chemical engineering and two pharmacy colleges. The M. S. University prepares students for a degree in Textile Technology. Besides, there are 20 institutions offering diplomas in engineering and 277 in lower technical trades. Then there is the Indian Institute of Management; management courses are also offered by the Gujarat University. In contrast to this, there are only three agricultural colleges and 13 agricultural schools. Moreover, very little has been done in the way of adult agricultural education. The responsibility for spreading agricultural technology has been left entirely to government servants—

agricultural officers working with the district and Taluka Development officers and village level workers called the *gramsevak*s, and theirs has been an advisory function mainly. And, although courses are organised for willing farmers on the whole very little has been done to improve the agricultural skills of our cultivators through education.

If so little has been done in disseminating agricultural technology, it is small wonder that nothing has been done in the area of farm management. Greater effort has been made in educating the rural masses to set up their own cooperatives. Gujarat is well ahead of other states in the cooperative movement, though the existing cooperatives have served mainly the interests of the richer classes.

Formal education has done very little to enable the rural population to tap government resources. Nothing is done, for example, to teach the students the arcane art of filling forms and keeping track of a file as it moves from one office to the other. No school syllabus includes a section on existing government schemes which would be useful to the students and their parents. Nor are the teachers required to give them basic information on banking facilities. Even so some attempts have been made to give rural schools an agricultural bias.

A more serious handicap of formal education is that it is aimed at children. Which means that it will be many years before they can take part in the decision-making process¹ in their own homes. But by that time it is very likely that they will have forgotten whatever they have learnt. Rural education, to be effective, must therefore start with the adults.

It is hardly surprising that the state of agriculture in most villages is still so backward.² Farmers are not sensitized to the danger of soil erosion and to the need to remedy it; they are not aware of the need for soil improvement and proper balance of its essential elements and the correction of its pH. The value of organic matter as a soil conditioner is unknown to them. Basic knowledge about how the plants grow, the diseases which may affect them and their remedies,

1. This point will be more fully elaborated in Chapter 2

2. This problem will be studied in greater detail in Chapter 2.

the scientific use of fertilizers for different crops—these are things most of our farmers still do not know much about. If they lack the knowledge they need, what good is the rest they learn to them? And, how can agriculture prosper without proper agricultural technology?

The villages require to develop in the social sphere as well. There is still a lot of exploitation going on. Unjust wages, exorbitant rates of interest, extortion of money and services from the weaker sections of society, which in many cases amounts to robbery, the state of subjugation in which the lower castes—all these still exist. Social injustice is evident in the way the lower castes and the other poor people are despised by the upper, richer castes. The crudest form of this discrimination, untouchability, is legally a criminal offence and in actual practice it is far less evident than it used to be before Independence—a tribute, no doubt, to post-independence policies—but, all the same, a great deal of the old prejudice still remains. Many other injustices continue to be perpetrated against the lower castes.

In the social field, rural development would mean working for justice and the abolition of discrimination. And, of course, it would also mean helping the people to attain at least a minimal economic standard which would enable them to have the necessities of life.

That there is need of social, economic, and educational development in the villages nobody will deny. But the problem is how to go about it. There are many people working for rural development and their approaches differ widely. We shall first describe the approach that we have adopted and then discuss other alternative approaches to rural development.

OUR APPROACH TO RURAL DEVELOPMENT

Some limitations. Our approach to rural development has been determined to a large extent by our own limitations. We are college teachers, and our profession has made us exclude a number of possible approaches to rural development. Obviously we cannot be full-time social workers and be all the time with the people. We have also refused to

organise developmental schemes for the people because we think that would be incompatible with our work as educators. For one thing, running aid-giving schemes would mean giving much of our time to administration, which would distract us from our educational work. Moreover, it would identify us in the eyes of the people as aid-givers and that would make it difficult for them to see us as educators. Eventually, they would come to us not to learn but in the hope of receiving some help.

Our profession has made us exclude another approach: the political one. Our profession is to educate, not to capture power. We do not form part of, nor do we wish to be identified with, any political party.

Then again we are educators not geologists, engineers, or economic planners. To that extent ours is not the *technological* approach. On the other hand, as educators we consider it our duty to communicate technology when that is advantageous to the people with whom we work. That implies seeking the help of experts whenever the need arises. Indeed, technology plays a very important role in our scheme, as we shall presently explain.

Moreover our work is carried out by a team of professors belonging to various communities, Muslim, Christian and Parsi and not by an individual. Therefore, we cannot adopt a *religious* sectarian approach. And yet we do not discard religion altogether, since we are aware of the important role it plays in the lives of many people. But all this does not mean that we consider other approaches either wrong or ineffective. What is wrong is the mixing up of roles. Our only claim is that as educators we also have a role to play in the development of rural India, side by side with the technocrat, politician, government servant and social worker.

Educational approach. Our approach is based on our understanding of what development* means. Economic and technological development do not necessarily mean real development. The latter takes place when there is personal

*. We shall deal with this more in detail in Chapter 4.

growth, which means increased *awareness*. And increased awareness in a climate of mutual support and understanding leads to a more efficient manner of dealing with one's own feelings, imagination and intelligence. It may also lead to a higher stage of spiritual awareness and a more mature understanding of religion. The net result should be increased *joy*. (See Table 1).

Table 1.1: Possible areas to be covered by our training

AWARENESS OF

— <i>positive feelings</i> (love, confidence, etc.) lead to	
— <i>negative feelings</i> with the help of the Instructors and the support of the group are turned into positive ones which lead to . . .	
Thus, feelings of <i>incompetence</i> turned into self-confidence.	I
feelings of <i>inferiority</i> turned into self respect, self-identity, group identity	N C
— <i>one's intelligence</i>	R
to learn new things (new technology)	E
to <i>create</i> and adapt technology to the needs of the situation and find creative solutions to socio-cultural difficulties	A
to <i>decide wisely</i> , knowing the various possible alternatives, their pros and cons; planning for the future.	S E
To <i>cooperate</i> , realising it is the best means to survive in adverse circumstances; searching for creative solutions to the human problems of cooperation.	D
— <i>his spiritual power</i> to transcend matter (autonomy of the spirit), the power of prayer.	J O Y

If as a result of our development efforts the people with whom we work are less happy, then our efforts have been in vain. We might have as well remained at home.

Our approach to development is also based on our understanding of rural society. In it even more than in an urban setting, it is the community which really matters. The individual has little meaning apart from the community. In fact attempts to help him outside the community can be dangerous not only because the chances of success are very small, but also because we may do much harm to the individual in question. Development means change. And one individual alone is rarely in a position to effect this

change in the villages. It is not only that change to be meaningful must be understood, it has also to be adapted to the demands of the situation and it has to be accepted, somehow, by all. All this cannot be done by one individual alone. It has to be done by a group—a small community.

But the villages as we see them,¹ may have several communities, depending on the caste composition there. Therefore the training to be effective must take a sizeable group² of a single or several homogenous castes.

Our approach is also based on our understanding of education. It is certainly not the type of formal education imparted in our schools and colleges—that covers only a very small fraction of man's reality, and has often little or no connection with that reality. Education should enable a person to deal more effectively with others, with his work, and also with himself (his needs, his feelings, his motives, his past history). It is a process of growth, a pilgrimage where the instructors have to accompany the pilgrims on their journey. The journey is undertaken by them; the teacher's role is only to show the possible routes to follow, to give encouragement when the going is rough. Education is a dialogue in which most of the talking is done by the people while the teacher listens and tries to understand. On occasions he fosters the dialogue with his questions, and his reflections. Sometimes he feeds the dialogue when he answers their questions.

Education is also a creative act and an educated man is a creative man. It is in this area that technology is used to impart education. Thus to apply somebody else's agricultural technology to one's own fields requires much more creativity than we are accustomed to think. Many questions have to be answered, many problems have to be solved before an experienced farmer will be induced to try a new technology on his own land. Each village has to discover its own answers and its own solutions. And all this requires a lot of ingenuity and creativity.

1. This will be explained later in Chapter 2.

2. A group of about 25, in our experience, is the minimum required to be effective.

Again, to set up a cooperative in a village, or to improve the working of an existing one means to solve many human problems which stand in the way. Education means training the intelligence of the participants to deal effectively with these problems.

A truly creative act is not the outcome of intelligence alone. Feelings and the imagination play a very important part as well. That is why in our training we pay much attention to this aspect. Finally, the introduction of new ideas in a village requires courage. That is why it is important to train not just one individual but a whole group. They can support, encourage, and be a source of ideas to one another.

Again education is a historical process. It takes place at a particular moment with people deeply rooted in a particular socio-economic-cultural milieu. The persons who take part in the educative process must be fully aware of all the forces acting in that particular community. The implication for the teachers is that they must study the community before, and listen to it very intently during the course. For, they cannot afford to miss a single clue. The participants must also become aware of those forces, because awareness of this kind has a liberating effect. Moreover, it helps the participants to take the right decisions for development.

Summing up, our approach to rural development is that of non-formal education given to a group of 30 persons taken from, and representative of, the same village community. The aim of this education is the whole man: his feelings, needs, motives, his intelligence and, if necessary, his spiritual powers. The ultimate purpose is to increase the participants' awareness and to prepare them to be more effective in dealing with the other members of the community, and with their own work.

DILEMMAS OF DEVELOPMENT

Betting on the strong or helping the poor. The first dilemma we had to face in our work was choosing the people we wanted to work for. If we want rural development whom should we help first, the big land-owner or the marginal

farmer? Working with the former is easier, the results are more likely to be quicker and on a greater scale, since big farmers have more land. This is also likely to generate more wealth for the country than working with individuals with smaller land-holdings, who are more backward, and have scantier financial means to introduce technological changes. Moreover, intensive cultivation by the big land-owners would lead to more employment. Thus, for example, improved dryland farming "would result in increase in labour requirement from 64 man-days to 80 man-days per hectare" (Azad, 1976, p. 7); the figures would be much higher for irrigated lands, and, naturally, in those cases where a change has been effected from one crop to two or more crops a year. If the big farmers adopt new technologies, it will not take long before the smaller ones imitate them.

On the other hand, helping the rich means widening the existing gap between them and the poor. It means giving them more skills and more wealth and consequently more power and, as a result, more resources to manipulate and exploit the poor. It is true that helping the poor is more difficult and the adoption of new technology by the marginal farmer is a much harder enterprise; but if the poor adopt new technologies the rich will be forced to follow suit. Their prestige will be at stake, if not their own survival as a powerful class. If, however, the rich adopt the new technology, the poor can always excuse themselves saying that they do not have the financial means and are not sufficiently educated.

In resolving this dilemma we do not take any hard line. But for reasons of social justice we prefer working with the marginal farmers. In our active recruiting we aim at them. However, we do not shun working with others. It always helps us to understand rural society better and thus enables us to operate more efficiently.

Conflict or gradualism. There is no doubt that helping people who are exploited brings one face to face with numerous injustices and one may want to opt for violence. The constraints imposed by our profession have helped us to make a choice here. For, to take up violence would be to

adopt a political approach, and ours is not a political approach. We have discussed this aspect of rural development with other people in the field. And it is difficult to come to an intellectual agreement on this issue. In practice, however, this dilemma has not posed much difficulty to us. When a group becomes aware of its inner strength, when its creativity, goodwill and determination are enhanced, and its members become aware of the social, economic and political forces at work in the society in which they live, there have been wonderful examples of groups fighting against injustice successfully without externally altering the existing structures.* We are often reminded of the British genius to introduce change while preserving their traditions at the same time. This approach may lack the efficacy of a Cuban or a Chinese revolution; but it maintains stability and avoids that most dangerous moment of vacuum when all structures are destroyed.

Help and dependency. Often development does not take place by itself and an outside force is required to step in and set the process in motion. How can this happen without making the people who are helped dependent on that outside force? And, how does the development worker free himself from that divine pleasure of imagining himself to be irreplaceable? To overcome this difficulty, our team has often done a little introspection. Whose needs are we satisfying? If our need is to feel wanted we will unconsciously do all in our power to feel wanted—even if that means thwarting the growth of our trainees. Becoming aware of that need makes it possible to combat it effectively. We consider our experiment successful to the extent to which the participants can take decisions on their own; the less they call for our help the more successful has our education been.

Furthermore, we try to “break the father image” in our training sessions, by making our participants realize that we are their equals. In some areas they know more than we do and in others we know more than they do; in the former they can help us and in the latter we can help them. This

*. See examples of this in chapter 6.

give-and-take is central to our educational process which aims at building up their self-confidence and giving them faith in themselves.

COMPARISON WITH OTHER APPROACHES

In order to clarify our approach to rural development, it may be useful to compare it with those of others and identify both the common elements and the differences.

The Gandhian approach. Gandhiji was a genius and like every genius he had a vision towards which all the activities of his life converged. Anybody who wants to follow Gandhiji must grasp this central vision, internalize it and live up to it. It is not following Gandhiji in this or that detail which really matters. The latter are accidentals which may change with the times and the circumstances.

The central vision of Gandhiji was to relate external freedom to inner freedom, social and political revolution to the inner revolution where man conquers himself. The Mahatma's greatest contribution to India has been the conquest of fear through self-respect and national identity. As Nehru (1964: 299) put it: “The essence of his teachings was fearlessness and truth and action allied to these... So, suddenly as it were, that black pall of fear was lifted from the people's shoulders, not wholly, of course, but to an amazing degree...”

A nation is really conquered when its people look up to the conqueror. The process of independence, Gandhiji intuited, must start by reversing this process of alienation and enabling the people to regain their self-respect, which makes self-identity and national identity possible. As long as the people identify with the conqueror no true independence is possible. One form of subjugation will be replaced by another, be it economic or cultural. Gandhiji himself gave dramatic expression to this new-found identity and self-respect by giving up British dress and manners and taking up those of a poor Indian. This symbolic gesture taught the people graphically that it is not power and money but truth and integrity which are the sources of self-respect. Self-respect generates self-confidence and courage. And

there are no limits to the possibilities of a people with these two attributes.

The Indian masses won with the Mahatma the fight for independence in 1947. But the fight against alienation, here as everywhere else, is an on-going process. As long as there is oppression and injustice, there are people still alienated, people still to be freed. In this subsequent fight for freedom we have forgotten Gandhiji's way. India's loss has been some other people's gain. In the words of the Rudolphs (1969: 160):

As Gandhi's ideals and methods have faded among Indian generations more interested in economic development, social mobility, and national security, they have travelled abroad. Freed from their particular cultural and national setting, they can be found particularly in the United States where Martin Luther King has translated them for use in the struggle by American Negroes for equal rights and opportunities.

It would be ironical if India, having taught non-violence to the world, were to wage its struggle for justice and true freedom through violence and bloodshed.

In our educational work for rural uplift we have adopted this method and ideal of Gandhiji, not only because it is in keeping with our profession but also because we wholeheartedly believe in its relevance today and have seen its efficacy in practice. In our experience, the example of Gandhiji who stopped aping the British and took pride in things Indian because he considered himself in no way inferior to the British and was consequently able to fight the mighty British Empire, finds an instant echo in the hearts of our trainees. They also learn to stop giving undue respect to wealth and power, they promise to respect their own exploited brethren and thus create a climate favourable to unity where they all stand together against injustice and oppression in a non-violent yet forceful manner.

The most remarkable thing about this approach of the Mahatma is its positive attitude and its educational possibilities. It is positive because it consists less in talking against the rich than in building up the poor. And its educational

possibilities are immense. It helps the trainees to recover their self-respect, to build up their self-confidence, to strengthen their unity and thus to pave the way for cooperation.

We have identified ourselves with this central idea of the Mahatma to such an extent that we would like to call our approach Gandhian. But Gandhism has been identified nowadays with the idea of *trusteeship* which we have not adopted. Gandhiji himself never utilised it in his most successful struggle, that of independence. History shows that few individuals give up their privileges voluntarily.

If we do not share Gandhiji's optimism in the willingness of the rich to change, we share his faith in the immense power of the poor to stand for justice without hatred and violence. His faith in both the rich and the poor made Gandhiji play down the importance of social structures to the point that he believed that the society could be improved without being re-structured. He certainly would not accept the view of modern sociologists and thinkers who view structures as almost inescapable, binding forces. While we are not so sure that society does not need to be re-structured, we certainly have not taken that task upon us. We do turn the attention of our trainees to social structures in order to increase their social awareness. Yet, we do not thrust any solution on them but, rather, trust in their wisdom and prudence to decide the best course of action for themselves.

We accept Gandhiji's post-industrial critique of modern technology and what he calls the "machine". We realise that modern industrial civilisation is not an unmixed blessing. Yet we assign an important role in our education to technology, as we have explained above. Technology can enslave man; but it can also free him. And when it helps man to be creative, it elevates him above other creatures. Gandhiji held that conquest of the world must be preceded by self-conquest. We, too, lay great emphasis on personal improvement or, as we call it, personal growth.

The political approach. This approach is based on the principle that power is necessary to introduce meaningful changes in society. The *radicals* believe in confrontation. According to them, the situation must become worse before

it can improve. A little help to the people is no help at all, since it postpones the real revolution. The aim is not just to improve things, but to change them radically. Others, less radical, may not advocate violence but still they insist on political action as the only sure means to achieve real justice.

All political parties in India, whether right, centre or left, have included plans for rural development in their manifestos. One may debate, however, whether these plans spring up from a real commitment to social change or merely from a desire to capture the rural vote. The efficacy of political action will naturally depend on the real aims and methods of the political leaders. In theory, however, one must accept that the political approach can be very effective. Political awareness created and duly canalized by an efficient party can lead to far-reaching changes.

Although we refrain from any political activity, there is no doubt that our educational work will enable our trainees to participate more actively and effectively in the political arena. But that is *their* choice. One good side-effect of our non-interference in politics however is that people have learnt to trust us more easily, since they see that we have no political axe to grind.

The technological approach. The assumption underlying this approach is that the villages remain backward because they lack the proper technology and knowledge. The advocates of this approach do not deny that there is need for social justice and personal improvement. But they aver that, given sufficient technological progress, all the other questions will take care of themselves.

This approach is the result of modern man's unbounded faith in the transforming ability of science and technology. It is also a result of that curious compartmentalization to which we are nowadays so much addicted. A technocrat would consider it highly ludicrous to think that it is part of his task to help others achieve personal growth. But we wonder how modern technology can be introduced in a traditional society without some degree of personal growth. It is here that our method differs widely from that of the technocrats. For us *man* comes first. It is not technology that

must transform man but man that must change technology, adapting it to suit his needs. Hence our faith is in man and not in technology, though, as we have said, we use technology to help man grow.

The religious approach. This approach can be understood in a narrow or in a broad sense. In a *narrow sense* it means development through specifically religious inputs like heightened faith in a particular creed and its resultant improvement in morals. There is no doubt that religious revivals have often led to cultural and even economic progress. A highly institutionalized religion, on the other hand, acts more as a conservative force and often hampers progress. Therefore religion can be either a help or a hindrance. If it over-stresses rituals and petty practices, it deadens the spirit and blocks the progress. But if its emphasis is on the essentials, on the spirit which has made religion great, then it elevates man to unsuspected heights.

It is only when we accept this ambivalence of religion that a meaningful dialogue can be established between those who oppose and those who defend this approach. For, if religion can be used to cover injustice and to escape reality, it can also help man to be honest, hard-working and concerned about others.

There are many good people who, unaware perhaps of the broader problems affecting society, have all the same striven in their lives to realise a religious ideal, and have spent the rest of their days exhorting people to temperance and hard-work, to a life of harmony and cooperation. Their contribution to rural development should not be underestimated. If we cannot assess their effort, we can at least pay them silent respect.

The religious approach to development in a *broad sense* means development which is based on, and inspired by, faith. In this sense we can speak of the Hindu or the Christian approach to development. Hindu thought, which played a very important role in modernising Hindu society during the so-called Hindu renaissance and gave rise to a number of thinkers of the stature of Ram Mohun Roy, Swami Vivekanand and Sri Aurobindo, has not played a

similar role in rural development. Whatever thinking has been done in India on this topic has been done by political parties, by government servants or by social scientists.

Christians thought, on the other hand has evolved greatly in its approach to development (if not in India certainly in other parts of the world especially Latin America). There has been a shift from the previous stress on individual improvement to a strategy of change, "whereby efforts to improve individuals' moral values can best support organised attempts to modify imperfect institutions." (Goulet 1974 : 126) This has divided Christian thinkers sharply into those who advocate reconciliation and those who favour class struggle. This division is most clearly seen in Latin America. Modern Christian thought has also made an effort to "resituate" Christian ethics in history; in other words, to have religion bear on the needs and aspirations of the present historical moment so as to engage the active cooperation in development tasks of all Christians who otherwise may tend to look at this world "with the eyes of eternity." These thinkers are very conscious of Marx's attack on religion as the opium of the people.

Christian funding agencies have shifted from a former policy of helping charitable institutions to that of giving help to projects which aim at making the recipients self-sufficient. The stress is definitely on economic development which will help as many people as possible to emerge from their state of misery.

In this context we should mention our attitude towards religion in our educational approach. As we have mentioned earlier, the fact that our team is made up of members belonging to three different religious communities and, more important, that one of them does not believe in any religion at all, excludes from our approach any sectarian religious influence. Still, we all accept the importance of religion everywhere, more so in a traditional society.

In our training courses we begin our daily activities with a prayer meeting. Our aim is to make the prayer of our trainees relevant to their actual needs and concerns. In sessions which have been particularly moving, when we

sense that the whole group has been struck by a new insight, we turn the session into prayer, urging the participants to meditate on the newly acquired insight. When the course has reached a turning point because the whole group is now ready for action or because they have taken a particularly difficult decision we may also turn the session into prayer, asking for help to carry out the new resolution.

We do not exclude religion from our courses for a simple reason. We want the religion of our participants to grow in maturity and relevance. If our trainees grow in every line except their religious life, they will be victims of an unbalanced growth. The result will be that either their new attitudes will destroy their religion or their religion will destroy their new attitudes. If we fear the latter, we have no right to wish the former. Because, in the end, for most of them religion will be their only source of consolation and courage, especially when adversity or sickness strikes them.

The daily prayer meetings are a powerful means to foster community consciousness. All the trainees are united doing something they have so often done in the village—singing *bhajans*. They feel at home and not as one transported to a strange surrounding. They feel part and parcel of their whole life. This element of continuity and stability in the midst of change is very important to help them be rooted in their past, and to make their new attitudes an integral part of their whole history—not something put on. The more they are themselves and identify with themselves the more creative and lasting the solutions they arrive at during the course. We must admit, however, that although in principle we do not exclude religion, in practice we have not as yet made it play as important a role as this discussion might lead one to believe.

Development and Government. One can hardly speak of a government approach to development and put it in line with the other approaches. Still, government is the biggest development agency and, as such, must be taken into account while speaking about development.

We must accept in all fairness that the Government of India at the highest levels has been pro-poor and that it has

many achievements to its credit. In the field of social legislation the Constitution itself made a good start by abolishing untouchability. Later the abolition of the *zamindari* system and various land reforms have been attempts to achieve greater economic equality. Perhaps the biggest all-round effort has been the setting up of the Community Development Projects all over the country. In Gujarat, every district has a district development officer helped by taluka development officers. Initially conceived as extension services, the Community Development Officers at present are not educators but administrators of the existing government schemes. On paper, at least, these projects still make provision for extension workers to the extent that every village is covered by a *gramsevak* who is supposed to advise and help the people in the development tasks. The *project*, however, has not been as successful in educating as it has been in carrying out the development schemes approved by government. This imbalance in favour of aid-giving rather than education has led to excessive dependence of the people on government assistance and initiative.

In the political field government has made great changes with the introduction of the *panchayat raj* aimed at the decentralisation of power. Given the economic and social structure of the villages this devolution of power so far has helped the dominant castes in most cases. However, one should not minimise the importance of the fact that even the former un-touchables now have political power, though it is manipulated by the higher castes. And, if the last *Panchayat* elections in Gujarat are an indication, it may be that the days of manipulation by the dominant castes are now coming to an end.

There are many government schemes aimed at rural development. It would take us too far to mention them all. We should mention, however, that there are some schemes meant for the weaker sections of rural society, like the Small Farmers Development Agency which operates in some selected districts or the Rural Works Manpower Programme which seeks to provide employment to the rural unemployed.

Needless to say, every big government scheme, whether it is concerned with education, health, irrigation, rural electrification or village industries, directly affects development. While many lower officers manipulate the bureaucracy to favour the rich and to achieve their own selfish purposes, we have also been witnesses to the dedication and competence of higher government officers in their work for rural development. Since we consider government the biggest development agency, we try to cooperate with it. This cooperation includes helping government in its educational effort, alerting people to the existing government schemes and explaining to them government policies and availing ourselves of existing government facilities in our own work.

The Participants

The content, method and, especially, the manner of training will depend largely on the trainer's image of the trainee. The trainer's perception may or may not be objective, but it will certainly explain much of his training. Therefore, before the educational method is explained, an idea of the participants themselves should be given. And, first, where do they come from? Table 2.1 gives the names of the districts, talukas and villages for which these courses were organised.

Table 2.1: Villages for which courses were organised

<i>District</i>	<i>Taluka</i>	<i>Names of the villages</i>
(a) Ahmedabad	Dashcroi	Bhadaj*, Naj*, Kubadthal, Lalpur, Lapkaman, Oganaj.
	Viramgam	Nani Kishol.
(b) Kaira	Cambay	Pandad, Tarakpur, Golana.
(c) Mehsana	Kalol	Rancharda, Palodia.
	Pathan	Pali.
(d) Broach	Dediyapada	Kambudi.
(e) Sabarkantha	Prantij	Ambawada, Waghrota.
	Bayad	Akrund.
(f) Surendranagar		Panasina.

*These were the first courses and formed part of our pilot project. They are not included in the project studied in this book.

There are many descriptions of the Indian village (Baden-Powell, 1972; Dube, 1955, 1958; Lewis, 1958;

Marriott, 1955). Of the 18 villages covered in this experiment only six are easily accessible by road. All the others are approachable during the dry season only, and then also by jeep, since the roads to the villages are very rough and extremely dusty during summer. All these villages save two, are served by State Transport buses, except during the rainy season when the bus services are discontinued. None of the villages is linked by a railway line.

Even in the relatively well-off villages two-thirds of the houses are *kuccha*, i.e., either mud houses or thatched or straw huts. The rest are *pucca* built with bricks and mortar and with wooden or tin sheet roofs. Some of these houses have running water and electricity. In nine of the 18 villages there is no electricity as yet. These better houses have bathing facilities but lack any other toilet arrangements, except in two of the well-to-do villages.

Doctors are available in the bigger villages. Thus, for example, Akrund with a population of 2,800 is served by six private doctors. However, the population of the whole revenue village which includes 12 smaller villages is 4,400. On the other hand, Kubadthal which has a population of 2,143 has only two medical practitioners. Most of the other villages do not have a doctor.

The educational facilities are much better than the medical services. Each of the 18 villages has a primary school and all the bigger villages have also a high school (except Kubadthal). Pandad has a school up to the tenth standard. Akrund, Ambawada and Rancharda all have high schools.

The caste composition of the villages varies considerably. In the Sabarkantha villages the main castes are Patel and Thakors, the former being the dominant caste. In the Cambay taluka villages, on the other hand, the two main castes are Rajputs and Scheduled Castes. Of course, other castes are also represented, some of them in considerable numbers.

The only Adivasi (tribal) village where we had a training programme is Kambudi in the Dediyapada taluka of Broach District. The set-up of this village is quite different from that of all the others. First, it is inhabited only by tribals, except for a Muslim family which runs a shop and

a Barot who has a farm. The fact that they are practically alone makes them feel quite free in the village. Although they have to face a lot of economic difficulties and are exploited by outsiders, they do not feel oppressed within the village. There one senses more joy and spontaneity. The village appears to be cleaner and healthier also. It certainly has no pollution problems, since it is right in the jungle. The houses are made of bamboo. The cattle are kept under the same roof: sometimes in a separate room, sometimes in the very room in which they live.

The head of their own tribe is called the *Vasavo* and, like most caste leaders, has executive and judicial powers with the right to impose fines.

An outsider with a good knowledge of Gujarati and Marathi will not find their language difficult to understand. Although they can understand Gujarati, some of them find it hard to express themselves in it; among themselves, they speak in their tribal dialect.

We organised courses for participants belonging to various groups: Rajputs, Patels, Thakors, Scheduled Castes and Adivasis.

As we started our work we thought in terms of a village. It was our contention that if we influenced the more powerful and influential people within a given village, the others would be also influenced. This theory, as we realised later, ignored two fundamental sociological realities. The first applies to all types of societies, the second is specific to India.

The first reality is that every society is unequal. This inequality means that some people have more wealth, more power, more education, more influence, more prestige than others. And the rich and powerful are eager to see that their privileges are preserved and, if possible, enhanced. Therefore to help the more influential people in the village is to provide them with tools to make their position still more secure. In any case they are likely to take care that the new knowledge they acquire is not communicated to the less privileged ones.

The second reality is a characteristic of Indian villages which, with the exception of tribals, are arranged according

to caste. The centre of the village is occupied by the dominant caste, and round this nucleus cluster the lesser castes. In the outer circle the Scheduled Castes have their huts. The social organisation in the village is, to a very large extent, autonomous within each caste. There is interdependence between castes in a number of things, especially in the celebration of village feasts and religious festivals. There is also economic interdependence, although this often takes the form of employer/employee relationship. But, for all this, most social customs are regulated by caste, not village authorities. This fact has not escaped the observation of sociologists. S.C. Dube (1974: 26) for example, writes:

“Family and kin (or such larger extensions of kin groups as caste) claim the major portion of one’s loyalty in these societies. Traditional claims of family and kin regulate the system of distribution. Groups rather than individuals... or, at any rate, individuals representing groups, control resources and related decision-making processes. The nation is often a series of autonomous communities that are at best loosely integrated into the wider national unit.”

Caste autonomy cannot be ignored in rural development, since social values are usually upheld by the caste. From the point of view of our training it soon became evident that what one caste learned was not easily shared by other castes, especially if there was a big social gap between the two. The greater the social disparity the lesser the communication between the castes. On the other hand, having an intercaste group did not work. First, individuals from castes of different status were not accustomed to come together and interrelate socially. It was difficult to get them to sit together and very difficult to get them to come together at the level of intimacy which we require in these groups.

It could be argued that this situation is in itself worthy of a special effort. Our answer is that this would be a short-lived experiment. Having participants from all castes would mean having a few from each caste who would easily be

overpowered on their return to the village by their caste fellows. Moreover each caste has different needs and it is very difficult to cater to them all in one and the same training group. In the interests of the efficiency of the programme we adopted the principle that course participants should come from the same caste.

From our point of view a Gujarati village is made up of various *sub-villages* inhabited by one caste. Each sub-village has its own hierarchical structure, laws, customs, and judicial system with power to settle disputes. It is this sub-village which was the aim of our training courses.

A caste in a village can be high and low, the lowest being the former untouchables who were supposed to be outcastes. When we speak of low castes we need not mean the Scheduled Castes. There are several castes which are not very high in the hierarchical order and are also poor and uneducated and therefore looked down upon by the others. Still, they are *caste* people and, as such, do not labour under the handicaps which are the lot of the Scheduled Castes.

The caste group may also be either very poor or relatively well off. A few well-to-do farmers in some of the villages we visited had a yearly income of about one lakh of rupees. Some of the poor farmers, on the other hand, owned small plots of land and had to supplement their income as labourers in others' fields. Their average annual income was around Rs. 900 only.

And so we have in the villages two types of inequalities. One is economic, very much like that found elsewhere in the world; the other is social, arising out of the caste system. This social inequality can best be understood when compared to the social disabilities of black people in some countries.

Let us first dwell on the economic inequalities and the obstacles this creates for the weaker sections in a village. There is no doubt that there is a lot of unemployment and under-employment in the villages. The land just cannot maintain the growing population. The result is that labour is extremely cheap, sometimes as low as Rs. 60 a month.

The maximum the labourers can expect to earn from relief works organised by government when the rains fail is Rs. 90 per month, depending on the amount of work they do. Since many of them are undernourished, their output is low, which means low wages. We had participants who could afford a meal only every second day during the drought years in Gujarat.

This is not the condition of landless labourers only. It could also be the lot of land-owning people if there are no irrigation facilities, because when the monsoon fails, there is expenditure on the fields but no income. This leads us to the central problem of rural indebtedness. The government is aware that all previous steps to solve this problem have failed. Money-lending practices are so notorious that there is hardly any need to mention them.

Indebtedness is not the only evil resulting from poverty. Poverty generates greater poverty since it does not allow the poor even to make the best of the little they have. How can they improve their fields, buy fertilisers, good seeds etc.? We have seen poor people forced to sell their crops well before they were harvested at a much lower price because they were desperately in need of money.

It was pointed out earlier that democracy has brought some significant changes in the villages. In some of those we visited the dominant caste still remains in power and uses it to extract the maximum benefits from government. In some places the lower castes (not the Scheduled Castes) have taken over the local administration. Unfortunately the chances are that they will not succeed. First, the dominant caste may boycott the newcomers and, secondly, the bureaucracy may also side with the upper castes. In any case, the new comers seldom possess the skills to deal with the government bureaucracy successfully. In economic terms this change seldom means much.

Socially, these poor people who belong to a caste, have the same disabilities which poor people suffer from everywhere in the world. They are made to look inferior and their presence is resented. The disabilities of the poor in the villages are grave enough, but those of the Scheduled Castes

are greater still. They are socially ostracized and as the physical arrangement of the village itself suggests, they lead a peripheral existence. A great deal has been done in independent India to ameliorate their condition and to remove a number of humiliating practices. But for all this, the caste people still look on the Scheduled Castes with contempt. The vernacular term for them is one of opprobrium.

This explains the poor sense of identity the Scheduled Castes have. Villagers have a high sense of identity: they are members of a big joint family in which each one's place is exactly defined, and this family is part of a caste and a subcaste located in a particular village. This sense of identity is a great help to caste people but it is odious to the Scheduled Castes and they would prefer to hide their origin. To use Marxian terminology, they are in a state of total alienation: they do not identify themselves with their own group and they are rejected by the upper castes with whom they would like to identify. To put it differently, since society despises the Scheduled Castes, they too, have learned to despise themselves. And to despise oneself is to despise all who are like oneself. It is this that makes working together a very difficult task since cooperation presupposes a minimum degree of mutual trust.

This lack of group identity and the desire to identify with the higher castes give rise in turn to an intense desire for authority and positions of prestige. The obvious result is a continuous power struggle. Of course, this is not an exclusive characteristic of the Scheduled Castes. The point is that in the face of a society which is so inimical to them, one would expect a closing of ranks among the Scheduled Castes to defend themselves against the rest. This, however, has not happened. Their main concern, rather, seems to be to upstage the others in the quest for positions of prestige. This may often be expressed in ways that may look puerile to us. For instance, it is not uncommon when the groom's party comes to the village for the bride's father to go and feed the cattle or do similar errands. Whereupon everybody has to come and request his presence. He then feels important. More serious and of grave consequence is the struggle

that may take place between the leaders and the younger generation. If the leaders feel that their power is threatened they will not hesitate to call in the higher castes to intervene. This the higher castes most willingly do since it gives them total control over the Scheduled Castes.

To understand these patterns of social behaviour it is necessary to be clear about the social set-up of the section of Scheduled Castes with whom we have been working, the Vankars. For about every ten families there is a leader called *mahetar* and in a fairly large village there are several *mahetars*. Though one of them assumes a position of authority over the others, decisions are made by all the *mahetars*. These decisions regulate the social life of the caste in the villages. By social life we mean not only the main events of the birth of the first male, marriages and deaths, but also other social relations. It is mainly for marriages that the services of the *mahetars* are very important. The *mahetar* of the family functions as a marriage bureau, marriage counsellor, and divorce court—all in one. Approached by the family when a son or a daughter has to be given in marriage, the *mahetar* will then get in touch with *mahetars* in other villages to find a suitable partner and to fix the amount of money the boy has to give the girl. Once they are married it will be his responsibility to see that the marriage is successful. But if it fails he together with the other *mahetars* will arrange for the divorce. When a death occurs the *mahetar* decides how many people will attend the dinner the family of the deceased has to give. Again he decides how many people will attend the celebration of the first male birth.

All the *mahetars* together decide the penalty to be imposed on deviant members of the community. These penalties range from a fine (to which a social stigma is attached) to expulsion from the caste. If a man is expelled from the caste, no girl will be given to him and his people in marriage, and the members of the caste will offer him no kind of help. The *mahetars* have other judicial functions also. If there is a fight between two members of their own caste, they will sit in judgment and resolve the conflict. But this is not easily done when there are factional incidents. The

mahetars thus have some sort of executive and judicial functions. Legislative powers are vested in the "assembly" or open convention which all the members of the caste in a well-defined territory (called *pargana*) may attend. This convention has the power to make laws binding on all the caste members in the *pargana*.

This arrangement leads to a territorial division within the caste. The most important effect of this division is that people cannot marry outside their territory. Territorial autonomy inevitably leads to factionalism, since people of one *pargana* consider themselves superior to those of another *pargana*. This generally decreases the likelihood of all members of a caste coming together to work for their own betterment. Thus an individual Vankar has a strong attachment to his own *mahetar* and to his territory, since his social life is circumscribed by its boundaries; but there is little allegiance to the caste as a whole since it does not impinge on his life. The practice of having several *mahetars* within one village and small territorial divisions, segments the individuals in the village itself and prevents them from coming together in sizeable numbers to solve their problems.

Within the village each *mahetar* may owe allegiance to a different high caste family. Which means cleavages among the upper castes will manifest themselves among the lower castes also. Hindu society is divided not only horizontally but also vertically, and this makes cohesion and unity among the poor a very difficult task indeed. This vertical division influences modern democratic processes also as a high caste patron can always tell "his" low caste people whom to vote for. Thus the head of a family with connections in many villages may be able to control many votes.

Briefly, the social position of the Scheduled Castes can be considered in two ways, from the point of view of the individual within the Hindu society, and of the Scheduled Castes society. The social set-up of the Scheduled Castes does not favour unity since it is divided in many different ways. If we now consider the whole of Hindu society the status of the scheduled castes is, as we have seen, unenviable. One of the results of this low social status is that the mem-

ber of the group do not like to identify with it. Thus, when some of them manage to improve their position through education or otherwise, they would also like to break their links with their caste peers. But even those who are not educated and are forced to stay within the group remain psychologically alienated from it, and would much prefer to belong to another group. This psychological alienation even more than the group structure is a great obstacle to cooperative action to solve their problems. From another point of view, this social structure generates a feeling of inferiority and a great lack of self-confidence which blocks the high degree of creativity they would require to cope with their situation.

Over and above these social difficulties, there are very great economic difficulties which naturally absorb their attention to a very large extent. When one does not have enough to eat, other needs become less important. And yet these needs remain important, as was brought home to us dramatically in one of the groups of Scheduled Castes we had. As a result of several years of drought these people had been reduced to utter poverty, even though the government had given them a good deal of land. In our training course they asked for material help. But their most persistent demand was to become Christians. On probing, they told us very candidly: "Now when we are asked about our caste we have to say that we are Scheduled Castes and this is very painful to us. If we become Christians we will be able to hide it by mentioning our religion only." These people were very poor, their maximum monthly income being Rs. 90 only, yet one of their main concerns was how to be respected in society.

The problem of the Scheduled Castes is so different from that of the other castes that it requires separate treatment. Unlike other castes where one can proceed to impart technological knowledge, once their self-confidence is sufficiently heightened, the main problem with the Scheduled Castes is one of enabling them to regain their self-respect by making them aware of their oppressive social structure and the social dynamics involved. Together with self-respect it is

very important that they learn to respect their peers which may bring them together and facilitate cooperation among them. This as our experience showed is possible. If this sequence is followed in training, it is quite possible to reach a higher level of cooperation and creativity within a relatively short period of time.*

To sum up, the villages could be divided into high and low, rich and poor castes. The latter division may be more like the class distinction in the West, while the former is typically Indian. These divisions create inequalities within the village, some groups feeling inferior to others. But in comparison to the city dwellers the whole rural population is, by and large, in a position of inferiority.

Our understanding of caste has led us to two conclusions: The first is that trainee groups should belong to the same or similar castes, the second relates to our teaching method with lower caste participants. With them the first step to be taken, before any other training is imparted, is to build up their self-confidence and to help them regain their self-respect.

THE JOINT FAMILY

Milton Singer (1968:426) gives the following characteristics of the joint family: "It is patrilineal in descent, patrilocal in residence, patriarchal in authority, and has an inheritance rule that divides family property equally among adult males lineally related within at least four generations." But then he goes on to add: "since there are significant variations in each of these components in different regions, castes and tribes, and religious groups, such a characterisation cannot be taken for the Indian joint family. It may, however, be taken as a characterisation of a dominant structural type of Indian joint family." From the point of view of our training courses, however, there are other aspects of the joint family system which are more important.

*See Chapter 5.

The relationship between the younger members, especially boys, and their elders, particularly the father or grandfather is one of love, where the elders assume all responsibility for, and take care of, the younger ones. The latter, in turn, respond by giving them great respect and love. The result is that all responsibility lies squarely on the shoulders of the elders who take all decision and often do all responsible jobs.

To us educators, the threat of informing the parents is both a powerful and a disappointing weapon to use in the correction of students. It is powerful because the threat carries much weight with students, none of whom wants his parents to receive a letter complaining about his behaviour in college. The main reason for this fear is not what his parents will do to him; it is the pain that receiving the letter will cause them. And, indeed, when the threat is carried out and the parents come to the college it is not to punish their children but to defend them! This love and loyalty is a source of great security within the family, and there is a demand for a similar loyalty from the younger members who are not likely to question what their elders do.

In our rural development programme the joint family system has seriously to be taken into consideration. We refuse to give training to younger persons since they have no say in the decision-making process of the family. By the time they do have a say they are likely to have forgotten what they learned.

It is our view that the joint family system is one of the reasons for the lack of initiative among the participants in the courses. In the joint family boys are not allowed to take the initiative until they are fairly old, though they are given much love and care. When a boy becomes old enough and decisions are thrust on him, he is likely to feel anxious and diffident—which is certainly not the best psychological disposition to strike out along new paths.

This needs to be studied more closely because it is directly related to some of the assumptions of our training.

McClelland has studied the way great achievers were brought up by their parents. These parents expected their son to start behaving in a relatively 'grown up' manner fairly early in life. That is, they expected a boy to start showing some independence (making his own choices, doing things without help) and mastery (knowing his way around the neighbourhood, doing well in competitive sports) and generally taking care of himself somewhere between the age of six and eight. On the other hand, boys with relatively low achievement drives had parents who either expected such independence and mastery at an even earlier age—before they were really ready for it—or who did not expect it until much later.

In our villages the "too early" expectancy pattern is found among the lower castes and poorer economic groups. Children are made to work and help the family in one way or another by their harried parents at a very early age. This premature pushing rarely encourages the boy to become self-reliant; it is more likely to frighten him. The more likely outcome is a cynical attitude and an over-developed instinct for survival. These two together often give rise to rascality which an inexperienced social worker may find rather difficult to understand. This element of rascality is by no means an exclusive trait of Indian villages; in the West it has given rise to the picaresque novel. Seeing how this rascality worked in our groups, this writer has often been reminded of a Spanish picaresque classic.* The very first lesson that the main character receives is to be tricked by his own mentor who then tells him: "I have done this to you so that you may learn to trust no one in this world." Lack of trust leads to trickery. Rascality is a way of coping with a desperate situation. It is the expression of a cynical attitude of a person who has never felt himself protected and sufficiently cared for. It is lack of faith in the world around and also in oneself.

The "too late" expectancy pattern can be seen in the joint family whenever it is not desperately poor. According to McClelland's description, these low achievement boys

*El Lazarillo de Tormes.

come from groups that have a tradition of controlling the activities of their children very strictly. These boys are either overprotected or overdisciplined or both. In the case of the joint family system they are mainly overprotected. They learn to expect to receive rewards from their parents as a matter of course, or as a mark of appreciation for being good boys, rather than winning them through their own efforts. Therefore, they try hard to please their parents by staying in line and avoiding the kind of self-assertion their parents may disapprove of. This type of upbringing dampens the boy's achievement drives considerably.

By achievement drives McClelland means the desire to do better than others, to improve one's own mark or standard, to take calculated risks. Characteristically, he links this attitude to the desire of knowing the result of one's own action and a full acceptance of responsibility for it.

It is easy to see how these achievement drives are not fostered by the joint family system, in which conformity and tradition are more valued. These drives presuppose a good amount of self-confidence: faith in oneself, faith that one can do better, faith to take risks, even if these mean possible failure; self-confidence which can accept one's own mistakes without feeling shattered. Now this confidence is the fruit of experience. Boys who have never been given the opportunity to take the initiative lack this experience and therefore lack self-confidence when they take over responsibility for the family. This diffidence is the greatest obstacle in our training courses. When the moment comes to teach the participants something *new* the immediate response always is: "We are not educated, we are poor." The reasons may vary but the refrain is always the same: "We *cannot* do it."

From the point of view of our training, it is very important to understand this state of mind. There is no point in teaching a person who is convinced that he cannot put into practice what he learns or, what is worse, that he cannot learn at all. If he is forced to learn he may make it an issue of prestige to show that he cannot learn. And in this game all the trump cards are in his hands! Incidentally, this may

become a very convenient game for both the teacher and the taught. The teacher comes to the smug conclusion that these people cannot learn and the trainee finishes the whole programme with a triumphant, if silent, "I told you so!" The teacher, and with him the upper sections of society, can then 'prove' that they have done everything in their hands to help the downtrodden but to no avail.

This problem of the lack of readiness of people to learn has puzzled some people, frustrated others and been the ruin of many good schemes of both government and voluntary agencies. It is indeed, a key problem in rural development. Without the desire to learn, agricultural technology cannot improve; and without an improved agricultural technology, economic progress cannot take place.

Everett Hagen (1962) explains the transition to economic growth as the process of change in any society from slow, hardly noticeable, technological advance to continuing advance, so rapid that it is conspicuous from decade to decade. And to him the causes of this transition are clear: "Entry upon economic growth is a result of the accelerating, or rapidly increasing, sum of *scientific and technological knowledge*."* Technological knowledge adequate for economic growth is nowadays available. The question is: why do so many villages not take advantage of it? In other words, why is it that there are so many farmers who have not acquired this technological knowledge?

Government has set up a number of agricultural universities to impart agricultural technology to the rural youth. But, as we have seen, the young graduate is not likely to introduce any changes himself since all decisions are made by the elders. If he wants to introduce agricultural innovations he must convince his elders. But are these elders ready to learn? Learning in this context is all the more difficult because it also implies change in behaviour. Mere agricultural knowledge is useless if it does not become operational. This explains the difficulty that government and private agencies face when they try to improve agricultural methods.

*. Emphasis added.

We can look at the same problem from a different angle. Technological knowledge must be used by a farmer, and its application in a particular case often requires a good amount of creativity even for purely technical reasons. As Hagen (1962) has pointed out, "A Western economy is a technical (and cultural) complex, not a set of isolated pieces of technology from which one piece can be detached and used efficiently elsewhere without skilful adaptation." In other words, learning agriculture means figuring out the way in which what is taught will be applied to one's own field. It presupposes a lot of thinking. This is difficult enough, but the difficulty is compounded when the new technique has to replace old ways of thinking.

Creativity is required to solve not only technical but also social and cultural problems. Very few people will dare to oppose their society or to run counter to prevalent cultural norms and values. It is here that creativity is required to adopt modern agricultural methods without antagonising society. It is difficult to be creative from another point of view as well. To be creative means to come up with something new. In a village a person who does something new becomes the target of much fun and ridicule. In these circumstances the possibility of failure may become very hard to face.

Even when these external difficulties do not exist, creativity has still to overcome personal problems and the difficulty of facing and fear of creating a new situation. Hagen has described two possible reactions of a person to new situations. One reaction is pleasurable anticipation of the possibility of using his capacities to deal with the situation, and the second is anxiety about whether he can do so effectively. "To some individuals most new situations are seen as presenting an opportunity, while to others most new situations arouse anxiety. The former are attracted to problems. They may be creative individuals. The latter fail to see the presence of problems because by not doing so they avoid anxiety." In other words, learning something new requires self-confidence to face new situations and introduce new behaviour in one's own life.

In our courses we repeatedly faced this problem of the

unwillingness to learn. We tried to solve it in two ways. First, we always took a big group from the same village and the same caste. It is very hard for one individual alone to initiate changes without the support of others. Second, we made great efforts to increase their self-confidence. For all their insistence on their inability to learn and to do better, deep down in their hearts, the participants have a great desire to believe differently. They want to be convinced that they *can*. And they especially want to be convinced that the trainer really believes that they have the ability. Words alone are not enough to convince them. They take what the trainer says and does to be a ruse—well intentioned may be—but a ruse, still. Or, again, they may think: “The trainer must say it, it is the right thing for him to do, he is paid for it.” There is only one way for the trainees to convince themselves that what they say is true and that is to test the trainer. They will play stupid, they will act stupid, they will irritate him and watch for his reactions. If he really has faith in them, he will let it show and in the end communicate it to his trainees. When this happens, there is a gleam in the eyes of the participants. The previous insistence on their inability now changes sign and it becomes a challenge: “We’ll show you that we, too, can do things!”

Giving them self-confidence is the first step. But this is not enough. The trainers must accompany them in their thinking process, answer their difficulties, explain again and again the reasons demanding the proposed change. To give an example, in a course we realised that one of the causes of the participants’ poverty was that they were cultivating more land than they could actually handle. The result was that they were incurring losses and thereby increasing their debts. They were told that the solution was to cultivate less but more intensively. But the point was lost on the participants. We stopped the exposition of the agricultural expert and for more than two days kept on discussing the problem with them. First it took us a long time to make them see the logic of it. Then they raised social objections: the others in the village will laugh at us and say: “See, they have given up.” Or, “they attended a course and instead of doing more they are doing less!” Their

attitude later was: “You’re right. We must cultivate less land but do it better. Sure, but we shall continue cultivating the other as before!” After much discussion they came up with a solution: “We cultivate only about two acres individually and the rest we shall cultivate on a cooperative basis.”

That was a creative solution, one adapted to their social needs: a solution we had not dared to propose knowing their opposition to cooperatives. Such a solution is not arrived at just by listening to a talk. Much thinking is required and it is during this thinking process that support is required. We had spent a long time dialoguing with our trainees over this problem. It does not really matter how long it takes since different people move at a different pace. The important thing is that the trainers are there with them to help them think along new lines. When the local people think creatively about their problems, progress has already taken place. Our work as educators is over, theirs as innovators begins.

AGRICULTURE AND COOPERATION

In the previous section we discussed the question of agricultural technology which is of crucial importance if the village is to develop economically. The participants came from two different types of villages: those which have irrigation and those that rely exclusively on the monsoon rains. Among the latter we should also make a distinction between villages that could be irrigated by boring deep wells and those whose land is known to have no subsoil water. The participants who had land with subsoil water were mainly concerned during our courses with the possibility of having a tube-well, since irrigation makes such a big difference in agriculture.

All the participants we have had so far needed to improve their agricultural methods. We will now discuss some of the areas where we found them wanting.

Those whose fields cannot be irrigated have to depend entirely on dry farming. In general, these people complain about their luck and keep on saying, “What can we do with

these fields?" They know very little about scientific dry farming. These people more than anybody else should have recourse to deep ploughing or the use of subsoilers, but they do not. In these regions there is a lot of soil erosion due to the pre-monsoon winds which sweep away the top soil. This problem of soil erosion is experienced all over India. According to a recent report of the Economic and Scientific Research Foundation (*Economic Times*, Sept 1, 1975), the loss of soil nutrients through erosion in India is more than the country's annual fertiliser output.

"One estimate puts the loss of top soil due to erosion at 5,000 million tons a year containing 2.5 million tons of nitrogen, 3.8 million tons of phosphorous and 2.5 million tons of potassium. Indiscriminate felling of trees has caused the advance of the desert, now covering 2,18,200 sq. kms., at the rate of almost a km. a year."

Since this problem is very acute in some areas of Gujarat, there is a great need to grow trees but apart from the laudable efforts by the Forest Department, very little has been done by the people as yet.

Soil erosion may also be caused by rainwater. This problem is felt more keenly in mountainous regions where erosion is mainly due to the rains. While the remedy for the former type of erosion is reforestation, the remedy for the latter is the erection of bunds. This is closely related to another problem, also found in these regions, the problem of land-levelling. In some regions of Gujarat we visited, efforts have been made to level the fields (in Kaira district the state government loans bulldozers on very easy terms for the purpose); in other regions, however, not even the most elementary precautions have yet been taken to protect the land from soil erosion.

The land in the fields must be both protected and improved. In none of the villages we worked was there evidence of a methodical and scientific approach to soil improvement. The state government and other agencies like the Gujarat State Fertiliser Corporation have set up soil testing laboratories. Some of our participants had heard

about them and, in one instance, an attempt was made to have a sample tested but the report was never received.*

In the absence of an analysis report, the steps to improve the land are taken more or less blindly. They include the use of manure and fertilisers. None of our participants seemed to have used these in a methodical manner. What was worse, in most places there was a woeful wastage of animal manure. In very few places was proper use made of cattle urine. Farmers are not aware of its richness in nitrogen content, it is true, but the main reason for this wastage is a social one. This is an instance in point of the need of creativity to make use of resources which science tells us to utilise and which cultural and social values prevent us from doing so. There are certainly ways of being scientific without offending cultural and social norms. Again, it is very surprising that in many of our villages compost pits do not exist and, practically nowhere, are they prepared methodically.

With regard to farm management, we found that in none of the villages were accounts kept by plot and crop, and in their calculations the only items they took into consideration were those for which they paid cash. Their own labour, the seeds, water and manure etc. were not taken into account with the result that some of them actually ran their fields at a loss. Others grew crops which are not economical.

Other aspects of farm management, like the study of markets, diversification of crops, study of what other farmers grow to maximise profits, were practically ignored. The use of hybrid seeds, however, has become quite common.

Many of these farm management practices could be best done through a cooperative. And, indeed, some of the small farmers we have trained cannot cultivate all their land by themselves. The solution we suggest at present is to have them leave some of the land uncultivated and to concentrate all their efforts on the rest. Ideally, of course, it would be

*To overcome the administrative difficulties involved in having the soil tested St. Xavier's College has now set up its own testing facilities for the benefit of the students and the villages we work with.

better to cultivate the land on a cooperative basis. But here we are faced with human problems which stand in the way of economic progress: the existence of factional rivalries and the absence of mutual trust.

In all our villages fights and quarrels are common occurrences. A fight brings along a number of evils in its train and the greatest of these may very well be that it makes cooperation impossible. There are very few places where cooperatives do work. In them one notices the difference immediately. The turn-over in the cooperative of Jawaraj, a village in the Dashcroi Taluka of Ahmedabad district for instance had gone up to Rs. 40 lakhs by 1971. This cooperative sells all the produce of the fields in Jawaraj in neighbouring villages, buys all the seeds and fertilisers required by the farmers, provides credit at reasonable rates and runs a shop where all essential commodities can be bought. Debt recovery is practically 100 per cent. The village as a whole takes so much pride in this fact that, if on a given occasion one of the villagers cannot return the money, the other villagers will come to his help. In a year of famine, every person in the village had enough to eat. They also provided fodder for the cattle which were migrating from Saurashtra to North Gujarat. This village demonstrates what a good cooperative can do for the betterment of the rural masses.

Unfortunately all the groups we have so far taken for training had some conflict or the other which stood in the way of cooperation. These conflicts sometimes begin as fights between two powerful men in the village and then develop into factional contests. When this happens the question of prestige becomes so important that it rules out all possibility of conflict resolution. The conflict eventually develops into a power struggle: each party tries to grab power by winning the panchayat elections and taking control of the cooperative society. The party that loses then makes up by sabotaging whatever constructive efforts are made by the party in power. Since this is 'war', everything is permitted provided you attain your goal. Deception is part of the strategy. Bitter experience then teaches people to have a deep distrust of others.

Evidently, little economic development can take place in this kind of social climate since people's minds are not sufficiently free to think about economic objectives. In spite of these difficulties we were able to make some progress and among our villages those which showed the greatest increase in their income as a result of our courses, did so precisely because they had set up a cooperative. In one case the growth was spectacular.*

Table 2.1 shows the districts and talukas from which our villages were selected. Out of a total of 18, eight villages were selected because of our College students, mainly those residing in the Hostel. These students saw the work we were doing with the farmers and decided that their villages, too, would profit from the courses. The way our students convinced their people varied. Some went to the Headmasters of their former school, others spoke to an influential friend in the village, usually the Sarpanch or deputy Sarpanch or contacted the young people. When the recruiting was done through an influential person in the village his tendency was to choose only those belonging to his faction. Conflict resolution then became rather difficult because there were no representatives from the other factions to present their views.

The second method of recruiting was done through government. Four villages were selected in this manner. The Taluka Panchayat office was contacted, our plan explained and our services offered. The Taluka Panchayat office would then either issue a circular inviting applications or send one of its officers to villages they thought needed this type of training. Only the Dashcroi Taluka Panchayat office was contacted in this manner.

The remaining villages were recruited through other agencies working for rural development. The reasons why these agencies called us were not always the same. On one occasion our course was part of an overall development plan. While social workers were responsible for material and technical help, we provided training and motivational help. More often, however, we were called in when the agency

*See Chapter 7.

found it hard to cope with a situation—community cleavages, factional rivalries or lack of involvement.

Working with another development agency may lead to either an ideal or embarrassing situation. If we share the same development ideology the situation is ideal. We play our role as educators and they as technicians, social workers or aid-givers. If our development ideas are different, then we are in a difficult situation. Theoretically speaking, there should be no problem. If our ideas are very different, the obvious thing to do is to decline the invitation. The problem is that often enough they readily agree in principle to what we say. Later, however, we discover that their practice is different. In this case, both are likely to be working at cross purposes. This is a greater evil than the one we set ourselves to remedy and, therefore, something we try to avoid.

In making the selection of villages there are certain rules we observe. First, we prefer relatively small villages with a population of around 1000 inhabitants. Second, we would choose two neighbouring villages of the desired size, asking them to send about 15 people to the course. Third, we ask them to send people who are actually decision-makers in their work. This would exclude either very old or very young persons. Fourth, if the village was much larger, then we could ask them to send us 22 people; the rest we would recruit from a nearby small satellite village. These rules have not always worked as we expected and so we have conducted courses for one village alone, provided its population exceeded 2,000 inhabitants. Later on, as we have mentioned, we stopped taking participants from various castes. This allowed us to select bigger villages, provided that the population of our sub-village or caste remained within the 1,000—2,000 range.

The reason for this insistence on small villages is that one individual alone can do very little in a village. It is only a fairly large group that can make itself felt. We can impart effective training to about 30 people, but if this little group were to return to a very big village, it would have very little impact. Of course, this difficulty could be obviated by organising several courses for the same village. Our pre-

ference is determined by the fact there are many small villages which need training more than the bigger ones.

The task of recruitment has not been easy. There is considerable reluctance on the part of villagers to leave their homes and spend ten days in a city college. Soon, the wildest rumours spread through the village. In one village the rumour went around that we were calling them to make them dig a road and that we would not give them enough to eat. In many villages on hearing that the training would take place at St. Xavier's College, someone or the other would say that the aim of the course was to convert them to Christianity. Others saw the course as a wonderful opportunity to be helped by what they consider to be a powerful institution. One, in particular, came to the course to have St. Xavier's start a school in his village.

Another difficulty we encountered in recruitment was that one faction of the village boycotted the training programme simply because it was the other faction which first mooted the idea. Since having the course then became a question of prestige the faction would recruit any person provided they could make the number. The result was that on occasions we had either very young or very old people. Of course, experience has taught us that these difficulties can be overcome by remaining long enough in the village or, as the last resort, to have the course cancelled. Again, we made great efforts to explain that the aim of the course was purely educational. Much effort is saved later on if this is made clear before the course begins.

The Process: Reflections on Early Training Courses

The beginnings of this experiment in motivating rural development may be traced to a friendly talk with a friend at Harvard University. In a conversation about development, he spoke enthusiastically of Dr. McClelland's findings on achievement motivation (McClelland, 1961). McClelland's book was thought-provoking. Back in St. Xavier's College lecture room, my students would look at me quizzically as they listened to my occasional outbursts on the need to foster achievement motivation. One day, a student gave me a cyclostyled paper entitled "National Progress and Achievement Motivation". It was prepared at the SIET (Small Industries Extension Training) Institute, Hyderabad. It was reading material for a training course. This was action-provoking.

On return after training at the SIET Institute, this writer proposed to use achievement motivation training at a yearly Leadership Camp organised by a colleague. These camps became increasingly achievement motivation oriented (Heredero, 1968). They were enjoyable experiences and the students were generous in their feedback (Heredero, 1971). But still, the question remained: had we made a real impact on the students?

We decided to organise a follow-up course, an advanced camp, for the former participants with the help of the Indian

Institute of Management (Ahmedabad) staff. The students were organised as a T-Group, and it became clear during the course that important behavioural changes had taken place in the students as a result of the previous camps. This was encouraging.

Could we now try these courses with people whose behaviour would give us quicker feedback on the efficacy of our training? The project to motivate economic achievement conducted by Dr. McClelland's associates in South India (McClelland and Winter, 1969) answered our question and gave us the idea of selecting small villages around Ahmedabad to conduct achievement motivation courses for them and study the impact of the courses. By this time a small Behavioural Science Centre had been established at our college. We set ourselves to work and formulated a plan which we termed as the "village project".

The aim of the project was twofold: to help villages in their development and to study the effect on them of both material help and psychological education. By psychological education we meant training to foster self reliance and to heighten their achievement motivation. We also wanted to make city students more aware of village life and rural development.

To carry out these aims we adopted three villages in the vicinity of Ahmedabad. Of these the first was to be assisted with material help and psychological education. The task of providing material help was to be entrusted to the National Service Scheme (NSS) of the college and the Behavioural Science Centre was to be responsible for the educational aspects. The second village was to be given psychological education only, while the third village was to serve as a control village for research purposes only. Once the selection of the villages was over the first step in the implementation of the project was a socio-economic survey of the three villages. The aim of the survey was to ascertain the assets and liabilities of the villages, their social set-up and their most pressing needs. This survey was entrusted to a professor of the Indian Institute of Management (Ahmedabad). In the light of the findings of the survey the NSS

was to help the first village in its material needs. Later, our Centre was to design a course for the two first villages to train their most influential people in development work.

The courses were designed following McClelland and Winter (1969) very closely. These were the main basic inputs:

1. *The achievement syndrome.* The participants are taught to study their own fantasy life; they are helped to recognise achievement images and to think and act along achievement lines.
2. *Self-study.* Practical training to examine one's own motives, values and, in this light, the type of work one is doing or would like to do.
3. *Goal setting.* An exercise to have the participants set long range and short range goals for themselves. In other words, they are invited to make plans for their own life. The plans are then discussed by the group to ensure that they are realistic and at the same time challenging enough.
4. *Interpersonal support.* Behavioural change can be threatening and difficult. That is why it is very necessary to create a climate of mutual trust and mutual support where every one feels backed up by the others.
5. *Follow-up.* A monthly visit to the village to meet those who participated in the course to encourage them and also to ascertain their progress.
6. *Final evaluation.* A second survey of the three villages for research purposes.

In executing this plan a number of difficulties arose. It soon became evident that it would not be possible to study the impact of our courses on the village through two general socio-economic surveys. The training given is only one factor leading to economic progress. There may be many other factors, and it is very hard to isolate one from the others, thereby proving that training alone was not responsible for the economic growth recorded. The survey of the three villages was all that could be done by way of research in this project. Material help was given to the first village but it was discontinued later.

The project was modified with respect to the course given to about 30 participants from the two selected villages. Our original design was changed to accommodate other topics we considered important. We introduced exercises on communication right at the beginning of the course to facilitate the exchange of ideas between them and us and also among themselves. We also gave much importance to cooperation and finally one full day was given to agricultural training.

The course itself was something of an experience to us trainers. It was an effort on our part to establish personal contact with people very different from us: they were farmers, had little formal education, and were comparatively poor; we were teaching in a college, living in a big city and relatively well off. The effort to bridge the gap was at times difficult but the result was a joyful experience. We learned much about rural life, but the important thing was that we now knew rural *persons* and by the end of the course, we could talk to them and they to us. They were persons, not objects of study and research. This was the first step in an on-going process of being helped by the people we wanted to help.

The joy and success of this experience encouraged us to make this project a regular feature of our Centre. We decided not to take up examination work in the University and devote that time to rural development. We then prepared a second modified plan to motivate rural development.

In this plan we stressed the principle that psychological factors play a more important role in development than material resources. Among these psychological factors motivation was given preference. It was assumed that given proper motivation most people had in themselves the power and the resources to achieve progress; and, in any case, no amount of material help would make much difference unless this need to achieve was there.

We also worked on the presupposition that people could be motivated. Indeed, everybody has *some* need for achievement. The aim of the courses was to heighten precisely that need to such a level that it became operational and superseded

other needs and motivations which stood in the way of progress.

It was also found necessary to introduce social and economic changes by making people aware of the needs of society. This awareness, we claimed, should help to "change values for progress." In effecting these changes we relied on the creation of a cultural island with our participants, taking them away from their usual surroundings into a place where they could interact only with themselves and the trainers, away from their society where certain values were firmly entrenched. This idea led us to have all the courses away from the village in a retreat setting. It is very difficult for a person to think differently when he feels himself constantly watched by the whole village and becomes the target of the pointed remarks of the non-participants.

The content of the courses was patterned along the lines of the course we had already given. These were the main inputs:

1. *Communication.* Exercises conducted to show (a) the differences of perception within the group; (b) the difficulty in conveying messages; and (c) methods to improve mutual communication within the group.
2. *Trust-building.* A number of exercises designed to improve the climate of trust in the group.
3. *The achievement syndrome.* Theoretical inputs, exercises, activities and games aimed at increasing the achievement motivation of the participants.
4. *Cooperation.* Group discussion on the meaning of cooperation: prevalent wrong ideas and its true meaning. Exercises to make the participants realise to what extent they are ready to cooperate.
5. *Problem-solving.* Exercises designed to increase their creative sense while facing a problem and better ways to solve problems, maximising the group's resources, raising possibilities, defining the problem etc. In the process the participants should also develop a taste for solving problems.
6. *Social change.* Exercises and group discussion on the

influence of group pressure, social structures and values on individual performance.

7. *Agricultural technology.* One full day of theoretical and practical demonstrations on some of these topics: prevention of soil erosion, soil improvement (levelling, soil testing, organic manure fertilizers), use of improved seeds, crop rotation and farm management.
8. *Planning and goal-setting.* The participants both individually and as a group are invited to set goals for the future.

There was also provision for practical knowledge to be imparted in selected areas of interest to the group concerned: banks, for credit needs; agro-industries, for those who wanted to buy farm equipment; milk producers' cooperatives, for villages which wanted to set up milk cooperatives, the Gujarat State Cooperative Union, to assist those who wanted to promote the cooperative movement.

AN EARLY COURSE

We have outlined in broad terms the plan of a ten-day course, but perhaps the plan will be more easily grasped if we examine one of these courses in depth on a day to day basis. The very first course we conducted shows that achievement motivation training can succeed with educated farmers. By selecting the very first course for analysis it will also be possible to observe the evolution in the training approach of our team that has taken place in later courses.

The participants in this course were mainly Patels from a nearby village, with a few representatives from other castes. Most of them were literate. Economically they were neither well off nor poor. Their main difficulty, according to them, was that much of their land had to rely exclusively on rain water. The subsoil water was brackish in some parts of the village but sweet elsewhere. They wanted to sink a tube-well in the sweet water area to be able to irrigate all the land in the village. Since the village is near Ahmedabad most of the participants were well acquainted with city life and did not lack sophistication. The recruitment had been done

through one of the college students from that village who had come to know about our plans. He spoke to the Principal of the village school and through him the course was organised.

Saturday, February 10, 1973. During our socio-economic survey of the village the usual recruitment obstacles had to be overcome. But once the participants joined us at the college we started in real earnest. Looking back now at this course I cannot but wonder what our participants must have thought when faced with a picture and told to write a story about it. But the fact is that we went through the TAT test and even taught them how to score their own tests (Heredero, 1968, 28).

Asked about their expectations from the course many in the group were vocal and specific. They wanted a tube-well for their village. There was no doubt in their minds as to whose duty it was to bore the well. It fell squarely on the government which so far had failed in carrying out this duty. Other institutions, of course, were welcome to fill in the vacuum created by the government's inactivity. This governmental neglect was attributed by them to the fact that their village did not belong to the Ahmedabad district. It actually belongs to Mehsana district and to the Kalol taluka, and both district and taluka headquarters were too far away, they thought, for government to take an interest in their village. This difficulty could be obviated if the village was transferred to Ahmedabad District which was much nearer to them.

It was clear that our participants were shirking their own responsibility and looking for salvation not through their own efforts but from government and other big institutions. To make them aware of this fact, we asked the group to work on two tasks. The first was to list the problems of the village according to their urgency and to propose solutions to them. The second was a well-known puzzle: to join with four straight lines only and without lifting the pencil nine dots arranged as shown below:

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They were given ample time. Fourteen people mentioned that the first need in the village was to have a tube-well and that the government should make the necessary arrangements. One of them mentioned that failing the government, any other institution could do it. The second need mentioned was that of making an all-weather road to the village. This also was thought to be the responsibility of government, though the village would provide labour. Here again there was one who said that another institution could build the road. Other needs mentioned were to open a bank in the village and to transfer the village to the Ahmedabad District administration.

We then asked them about the second problem. Nobody had been able to join the nine dots as instructed. For a long time they kept drawing lines within the square formed by the nine dots. Of course, the only way to join them with only four straight lines is to draw the line well outside the square. When they finally gave up and turned to us for the solution, we drew the four lines and watched their reactions. There were the usual cries of, "Well, we thought we were not allowed to draw lines outside the square." There was silence and reflection when we asked them: "Is there any similarity between the way you want to solve the village problems and the way you wanted to join the nine dots?"

In the dialogue that followed the group came to two conclusions. First, that there is no point in looking to government for every problem, that you have. That was a predictable and rather logical conclusion. The second took us by surprise: if you want to find a solution to the village's problems you must come out of the village just as you must leave the square if you want to join the nine dots with four straight lines. What they meant to say was that if you remain "submerged" in the village you end up by going round and round the same groove. As Freire would say, it is only when men emerge from their submersion that they acquire the ability to intervene in reality.

Our task at the end of the session was to repeat more clearly what they had already said: if a solution has not been found within a certain range of possibilities you must look for it somewhere else. How long are you going to keep on

looking to the government for the solution of all your difficulties? Why can't *you* find other ways?

The next session that day was an explanation on the characteristics of achieving persons. Although the session resembled what Paulo Freire calls the "banking" method of education, still it could hardly be called a lecture. Even when we have to give theoretical inputs we follow the team teaching method with one of us taking the leading role and the others either asking for clarifications, repeating in a different manner what has been said, giving other examples or raising objections which we guess are in our participants' minds. The overall impression is more that of a play than a lecture. Still, one may well question the wisdom of inflicting on our participants a litany of the virtues common to those modern saints called achievers.

The last session was on communication, making use of standard practices to explain the effects of conditioning on our perception, and the difficulties arising thereafter in interpersonal communications. We showed half of the group the picture of a young lady and the other half the picture of an old lady. After that we showed the whole group a composite picture. When we asked them what they had seen there was a minor riot—with shouts and even abuses being hurled at each other. It was then our turn to make the group reflect. We asked: "Does this also happen in your village?" The answer was unanimously in the affirmative. "Will you ever reach agreement if you go on like this? Are you listening—trying to understand what the others say?" Someone in the group had made that effort to listen to what the others were saying and as a result he saw that the picture projected was a composite one with both the old and the young lady. But it took a lot of ingenuity on his part to make the others see his discovery.

The group was then made to reflect on the fact that there are two types of discussion. The first is a fight, which sometimes gives a lot of pleasure, sometimes doesn't, but nothing else comes out of it. The second is a meaningful dialogue. The latter can take place only when two parties listen to one

another and when both make an effort to understand each other's point of view.

This exercise served as a good reference point during the rest of the course. When people got involved into verbal fights we reminded them of this exercise.

Our work with the group was now over for the day. But their work had not yet ended. They were now on their own and this was the time when they would go over the day's activities making their observations, reflections and comments.

Sunday, February 11. The day began with a prayer meeting. We do that every day. It took various forms. Sometimes they themselves conduct it as they would do in their village. Sometimes, our students conduct it for them, and finally some of us also take the leading part.

After the prayer meeting we reviewed the previous day's activities. This is also a common feature every day. It is important for us to know exactly where the group is. It also serves to hammer out some of the lessons they learned the previous day, and it is an opportunity for all of them to ask questions and raise difficulties that may still be bothering them. This review also alerts us to the real concerns of the group. It is not uncommon for us to change the programme when the group moves along unexpected lines.

After the review of the day we had the formal inauguration of the project by the Minister for Agriculture and Panchayats. Our work in the villages has made us realise that the government has many good schemes. We have also come in contact with some government officers who are extraordinary people. It is true that the lower officials are not sometimes quite up to the mark. But this is precisely an area where we can be of help to both the people and the government by making people aware of the schemes of government they do not know and by helping them with the paper work which can be quite difficult at times. We must also add another fact. The official attitude of the government is to favour the poor and the underdog. We do not speak about the execution of this official policy because regardless of how this policy is implemented the fact remains

that the policy is in favour of the poor and is a great asset to social workers.

For all these reasons we always make it a point to work with government, by informing them of our courses, asking them what villages they suggest we should take up and requesting them to send the *gramsevak*s to attend the course. The inaugural session of the yearly programme is marked by great solemnity and we usually invite the Minister in charge of Village Panchayats. It gives us an opportunity to explain our work to government and also to establish good relations with the officers.

The afternoon session was dedicated to the ring-toss game (Herdero 1968: 65). After the individual trials where each one is given an opportunity to throw the ring from any distance the whole group was asked to form two teams and to choose their own leaders. The leadership was given to the two *gramsevak*s of the group. Each team was to try to score as many points as it could and win. The two teams chose different strategies. One team had all its members throw the rings from very near to make sure that they scored. The other chose rather distant positions with the result that it did not score sufficiently (only 200 points vs. 440 of the other team). When the time came to reflect on team behaviours there was a long discussion. As usual at the start each team defended its strategy. The losers ridiculed the victors—girls who did not have courage. The victors kept on insisting that the losers had been defeated because they had not used their intelligence.

The trainers then made the group reflect: some individuals of the winning team had insisted on throwing it from further away but had been forced physically to come nearer. One of them was asked:

“How did you feel about it?”

“There is no fun in throwing the ring from such a short distance.”

“Why not?”

“Well, from that distance even a child can ring it!”

“Oh, I see, there was not enough of a challenge.”

The trainers now put a question to the whole group:

“Let us forget now who won and who lost. Can you now point out what was good in each team’s strategy?”

After much deliberation the group came to the conclusion that the winning team had been more realistic, but had not taken enough risks. The losing team had taken risks all right but it had not paid sufficient attention to the need to win points. At this point the trainers took over and explained the meaning of calculated risk, linking it with the previous day’s explanation of the characteristics of an “achiever”. In this group the ring-toss and its analysis followed very closely the standard procedure in all achievement motivation programmes (Herdero, 1968; Alschuler, 1970).

Monday, February 12, 1973. After the prayer meeting and the usual review (of the previous day), much of the rest of the day was given to what we call the Origami game (Alschuler, Tabor, McIntyre, 1970) which is a modification of the MRG Business Game used previously in achievement motivation courses (Herdero, 1968). Inasmuch as this follows standard procedures, we shall not dwell upon them. A comment will be appropriate here on the adaptation of these techniques to village folk. While there is not much difficulty with the ring-toss, the same cannot be said of the Origami game. It has been our experience that villagers face genuine difficulty in folding papers, the main manual activity in this game. This difficulty upsets them greatly. Consequently the rest of the activity suffers.

Yet this game affords a very good opportunity to study the participants’ attitudes towards cooperation and their readiness to work together. For, with the second “product” they are allowed to form companies and the profit increases geometrically as the number of products sold increases. It is also a very good exercise to train the participants in decision-making. The main aspect we usually stress here is: did you take all the factors into consideration? There are three “products” to be “manufactured” and after each one of them we reflect on the decision-making process. Moreover, this third stage of the exercise gives the trainers good opportunity to increase the self-confidence of the participants who usually feel discouraged by the losses incurred in the two

previous products. By helping the participants to make a profit in this third product, the lesson is driven home that proper planning and careful execution help a person to succeed where he failed before.

We ended the day with a story and a question. The story:

Revabhai went to the town fair and bought a buffalo for Rs. 1000. As he was returning to the village he met Shankarbhai who asked him:

"Ho, what did you buy in the fair?"

"Can't you see? This buffalo!"

"I see, I see. How much did you pay?"

"One thousand."

"What did you say? One thousand? I will give you one thousand one hundred!"

Revabhai thought it was a good bargain just to walk a few miles and make hundred rupees. He sold the buffalo to Shankarbhai.

On reaching home his wife asked him:

"Alyia! What did you bring from the fair?"

"A buffalo."

"Where is it? I cannot see it!"

"I sold it to Shankarbhai!"

"For how much?"

"One thousand one hundred."

She was a rather self-willed woman and insisted that she wanted to see the buffalo. When Reva's wife saw the buffalo she took a liking for the animal. She pleaded with Shankarbhai.

"I want that buffalo back."

"How can I give it back to you? I have paid Rs. 1100 for it."

"Well, I'll give you one thousand two hundred."

"Since you are so keen and after all the buffalo was yours, I'll accept that. But mind you, it is a very good buffalo, eh?"

Reva and his wife walked back home, he a little humiliated and she quite proud of her buffalo. Back home, Virambhai dropped in for a visit and was greeted by Reva's wife:

"Did you see our new buffalo? Such a nice animal! We

almost would have lost it had I not rescued it from Shankarbhai."

"Why? Did he steal it?"

"No. He bought it."

"How much?"

"One thousand one hundred."

"How did you get it back?"

"We gave him one thousand two hundred."

"I like this animal. I give you one thousand three hundred."

Reva had heard all this in silence. But now he decided it was high time to re-assert male supremacy and, before his wife could say anything, he accepted the offer."

Our participants followed the story of Reva and his wife with rapt attention. But now they were in for a rude awakening as they were asked the question:

"I want you all to tell me what was the outcome in terms of money of Reva's transaction. Did he lose money and if so, how much? Did he make profit? How much? Or, may be, he neither lost nor gained. Let each one make his calculations and let me know."

When, after a while, they gave us their answer there was a great difference of opinion. (See the Table below). We insisted that there could only be one answer and they should come to an agreement about it. This plea we made twice; and since there was no agreement in sight (See the Table below) we told them that they could work on it for the rest of the day—and the night—if they so wished.

Profit of Rs. 100 Rs. 200 Rs. 300 Loss of Rs. 200 No profit/No loss

1st time:	7	3	1	1	14
2nd time:	1	7	—	—	18
3rd time:	9	—	—	—	17

Tuesday, February 13. After the usual prayer meeting, we had no opportunity to review the previous day's activities. The participants jumped on us to tell us about the financial transaction of Revabhai. "He made a profit of Rs. 200," they said. But that was not all they had to tell us.

"You have made us work the whole night!"

"Why?"

"We worked at it after you left. We worked at it after supper. But we could not come to an agreement. So, at night before going to sleep we worked at it again."

"So much?"

"What! Even this morning we were at it still."

"But now you have the correct solution. All of you."

"Not yet. There is one who does not agree."

"Who is he?"

A rather hesitant person raised his head and rather apologetically said.

"Well, Rs. 200 is the right answer. But you can't give in easily like that, can you?"

The trainers then asked the group:

"What do you make of this?"

"Look at the blackboard," one of them said as he pointed towards it. "There we have the answers we gave yesterday. At the beginning only three people were right and twenty-three were wrong. Now in the village we go by majority vote. Doesn't it mean that we are bound to make mistakes?"

"Yes, but a democracy also means that everybody has the right to put forward his point of view. Now, why did you all accept the Rs. 200 answer? Because that is true. Truth is so powerful that in the end it wins over everybody to its side."

This remark was intended to counter doubts expressed by some regarding the working of democracy. In this village political power had slipped away from the Patel group, the dominant caste, into the hands of the Thakors who are supposed to be an inferior caste. For some time the group dwelt on this problem. But here as in other groups inter-caste difficulties proved too difficult to be solved. People tend to be particularly intractable when it is a question of giving up privileges. History repeats itself.

Had we taken this course two years later we would have stopped all other activities and made the group reflect on this Thakor-Patel rivalry until they came up with a more creative way of handling the situation. On this occasion, however, we proceeded to make the participants reflect on the *way* they

came to the solution of the problem. Some used little pebbles to make their point while others used one rupee notes. And there was a general feeling of euphoria at the end when practically all of them came to an agreement. In the process the whole group came closer together, which was also one of our aims.

The rest of the day was given to the explanation of the scoring Manual (Heredero, 1968:69) and there was also a session of role play (Heredero 1968:99). We used this activity to show how fear inhibits people and how encouragement and sincere praise go a long way to diminish that fear. We made the trainees repeat the same task with more encouragement to show them in practice how fear could be overcome. It is very important that the participants have an experience of getting rid of their fears and an experience of success for this helps to build up morale and give them poise and self-confidence.

THE REST OF THE COURSE

The detailed report of the first three days given above will suffice to give an idea of the way we proceeded. We will now give a condensed description of how the rest of the course developed.

By now a good rapport had been established between the trainers and trainees. The latter were highly involved in the activities and consequently their desire to learn was very high. There were three areas we wanted to cover. One was greater and more accurate information regarding the various agencies designed to help the farmer, especially those which this village needed. The second was agricultural technology, and the third, greater stress on creativity that would lead to technological innovation.

Accordingly, we had our group meet officers from various agencies. In the process our participants learned how to meet high officers and deal with them. The officers, on their side, gave the group information regarding the opportunities available to them and discussed the best ways to use them.

Since the main concern of the group was the tube-well, the officer in charge of the rural credit department of the Bank of Baroda and the general manager of the Land

Development Bank discussed with the group the possibility of loans and the difficulties involved in their particular area. As we said earlier, at certain depths, the water was brackish and only lower down was sweet water found. There was a danger that the brackish water might percolate down to the sweet water and ruin the scheme. The group pointed out that the government had bored several tube-wells nearby and all had been hundred per cent successful. We then called the manager of a well-known drilling company to discuss with the group the technical feasibility and the costs involved. During all these discussions other options came up for examination. One of them was the possible use of an abandoned well which had sweet water.

Another need of the group was to form a milk producers' cooperative. Most of the participants had milch cattle but the milk was sold to traders who transported it to Ahmedabad and made a big profit. By setting up a cooperative the group would ensure a good price for their milk. We asked the extension officer of the Dudhsagar Dairy, Mehsana, to discuss the problem with our participants. Unfortunately, they were told, that until the chilling plant at Kalol was completed they would not be able to set up the cooperative. However, the traders came to know that the dairy officer had been with the group and that was enough to put the fear of the Lord in their hearts. The village got a much better price for its milk thereafter.

In a previous chapter we spoke of the need to foster agricultural technology. When we gave this first course our ideas on this matter were not very clear. We were not aware of the great need to improve agriculture and of what we could do to meet it. Still we thought there was some need to impart agricultural knowledge and so we took this and subsequent groups to Xavier Research Farm. Being in the farm was an education in itself. The director of the farm explained to the group the various ways they could improve their farming methods even if they did not have irrigation water. What was more important, they learned that *they* could improve their fields. This meant a change from the former attitude of reliance on government and other agencies to acceptance of personal initiative.

There remained two more aspects which we wanted to emphasise. One was reinforcing their newly developed attitude to creativity in problem solving. For this purpose, we used a brain-storming session followed by the multiple role playing exercise (Maier 1952).

The second aspect on which we concentrated was cooperation. This group had come close together and a pleasant camaraderie developed during these days, but this had to be turned into an efficient working relationship. It was necessary to explain the meaning of cooperation, dispelling the notion that cooperation meant sacrifice and insisting that in cooperation everybody should win.

We had now been with our participants for nine days, all the while dialoguing about economic development and the best way to achieve it. In other words for nine days our participants had, consciously or otherwise, become quite rational in their way of solving problems—examining a problem from different angles, looking for the maximum number of possible solutions and studying the advantages and disadvantages of each before making a final choice. They had an opportunity to speak with high government officers and in the process acquired a new sense of confidence in doing it much better than they expected. They had seen the many possibilities ahead of them of which they could avail themselves without having to rely on others. And all this was a great change from the first day. But now it was time for them to go back to their village and meet their old friends and relatives. How did they plan to relate to their old acquaintances? How did they expect to be treated back home?

The final day was devoted to this re-entry problem and to finalise the goals each one would set for himself as well as the group goals. Most of this work was done by the participants themselves. As instructors we began to withdraw gradually from the picture. We were still in the co-pilot's seat but from the next day their first solo flight would take place.

WE LEARN

From the description of our first course it will be clear that our approach was a mixture of standard organisational

development practices and achievement motivation training. This approach worked sufficiently well with the relatively better off sections of the villages, but it was too far removed from the stark realities of the poor and illiterate villagers.

Here our participants had much to teach us. The assumptions behind the plan itself were to undergo a significant transformation. So far, our starting point was that there must be rural development and economic progress. And the rest we did was the logical consequence of this fundamental assumption: we must help rural people, motivate them and expose them to new technology.

As we came in contact with our participants we came to know them as persons—people with needs and distinctive qualities, warm people with whom you could be friends. Rural development became less and less economic progress and it began to mean: help and be helped by rural people. Allow rural people to help you. Let them correct your ideas about the villages and their inhabitants; let them test your ideas about development, your urban values, your motives. Let them temper your sophistication with their rough native intelligence. Then you will be in a position to help them gain perspective, develop poise and self-confidence and become more creative in their work. Greater productivity does come into the picture, but in its proper place. Man comes first and his working later.

And, of course, there were a lot of things in our courses that had to be corrected. Our participants needed practical knowledge about their every-day work back home, i.e. agriculture. This need had not been sufficiently taken care of. Moreover, most of the exercises used in our training courses were industry oriented, thus making the exercises and especially the theoretical inputs behind them far too remote from the real lives of the participants. All these truths were brought home to us in a very dramatic manner by a signal failure we experienced in one village. This failure taught us so much that it would be worthwhile to describe it in detail.

In 1974 we were asked by the National Service Scheme of our College to conduct a course for the village adopted by

them. The NSS had carried out a number of relief measures in this village which had been badly affected by the rains in 1970.

The NSS study of the village revealed considerable indebtedness to the extent of Rs. two lakhs though the population was only 405 according to the 1971 Census. Since the people were always badly in need of cash they were often forced to undersell their crops long before they were ready for harvesting. Thus what they sold for Rs. 14 could have been sold later on for Rs. 46. Because of indebtedness all their lands were mortgaged and exorbitant interest rates had to be paid. They had also borrowed Rs. 80,000 from the cooperative society of another village. Since this amount had not been returned, they could not set up any cooperative society of their own. The greatest contribution of the NSS to the village was the boring of an artesian well which could meet all their water needs. The produce of the land greatly increased as they now could have a second crop over and above the greater yield of the first one. This brought more money to them and decreased their dependence on the money-lender. They could now even think of repaying their debts. The NSS felt, however, that the people were not taking enough advantage of this opportunity because they lacked agricultural skills and scientific methods.

Socially the village is dominated by one caste to which 55 out of the 75 families living in it belonged. In practice much of the work in the village was carried out by two dominant figures, Devabhai and Kantibhai. A certain distrust of them could be sensed yet nobody dared oppose them.

The aims we set ourselves to achieve in this course were to foster initiative in the participants, to develop in them a more scientific outlook on things and to make them more self-reliant. Indeed, we wanted to have a strong team of about 20 people representing the various sections of the village who would then take advantage of the new opportunities to solve the old problems and forge a new future.

It was decided to begin the course in March since that was the time the farmers would be relatively free to attend. Our first mistake was to change the date to suit our own

requirements, though it is true that we went to the village to ask them whether the new date would be convenient to them. To make matters worse the Director of the NSS was away and he returned just at the start of the course, to find that of all the people he wanted to bring to the course only four or five were present, the rest being poor replacements needed to make up the agreed number.

A description of what happened in the course is given below.

We started with a session to find out what their expectations were. The overall impression we received was that the dominant concern of the group was how and from where to raise cash badly needed to repay their debts and also meet their other needs. We then decided to make it very clear to them that we were an educational institution and that all we could give them was training.

It became evident at this session that the group was dominated by Devabhai and to a much lesser extent by Kantibhai. Of the others hardly anyone spoke. Actually when anyone else made an attempt to speak, he was quickly shut off by a decisive intervention by Devabhai. It was then decided to split the group and separate the less vocal people from the main spokesmen. In this sub-group Devabhai displayed remarkable resourcefulness in dodging questions he wanted to avoid and was resentful when he was forced to give a chance to other members.

In the evening we had a session on communication. The standard picture of the old and young woman was shown to them (that of the old woman to one part of the group, that of the young woman to the other and then the composite picture to the whole group). When asked what the picture was about, the replies ranged from "I see nothing" to "This is a peacock!" As the trainers tried to explain the pictures, the session became somewhat tense as the main participants refused to cooperate. That same evening some participants left us and returned to the village.

Our impression was that Devabhai quickly saw the implications of the course: greater participation from everybody in the discussion which implied less authority for

himself. It was our feeling (though we would not be able to substantiate it) that Devabhai made efforts to sabotage the course. In this, several factors favoured him. First, we conducted the sessions with these illiterate and poor people in the same way as we did with more sophisticated, better off farmers. We were using a language that these people could not understand. The exercise on communication used pictures that made sense to people accustomed to Western dress. At the end of the session the rumour spread among the participants that we were showing them Christian pictures to convert them. Unfortunately this rumour did not come to our knowledge until later on.

The following day we began with apprehension because several people had already left us and we realised that we were not communicating. We thought that the best way out would be to have them speak out their true feelings and then build on that. But this they were not ready to do.

At that moment we had a brief consultation among ourselves and decided to discard the programme we had prepared, leave the college and take them to the Xavier Research Farm, some 80 kms. away. What moved us to take this step was their insistence on knowing more about agriculture. This was their *felt* need which had to be satisfied if their involvement in the course was to be preserved. Hopefully as they learned about agriculture they might become aware of other needs which we considered very important.

When we were making arrangements to take them to the Farm several other people left us for their village. Only a few people remained and we were not sure about their determination to stay. So, reluctantly we decided to cancel the course.

One could point out several reasons for this failure. We had altered the dates of the course hurriedly and since the change was not to the villagers' advantage the selection of participants was poor. Then although an attempt was made to explain the aim of the course to the participants, there was still scope for misunderstanding. In particular we did little to dispel possible suspicion against the college itself, taking it for granted that this would not be necessary since

the NSS had been working in the village for some time. Further, we were slow to react to the distress signals coming from the group, taking them to be expressions of a natural difficulty experienced during the first day. But by far the most important reason was that we had failed to assess the cultural and social state of our participants. All farmers are not alike. What succeeds with one need not necessarily succeed with another. But we were prisoners of a preconceived plan, lacking the liberty to react to the concrete needs of the concrete human persons sitting around us. Having failed to realise the role played by Devabhai in the village and how threatening our course would appear to him, we did nothing to allay his fears. We had also failed to effect a smooth transition from the role the villagers were accustomed to see St. Xavier's play through the NSS and the new role we now proposed to play of an exclusively *educational* agency.

Whatever the reasons, this failure led us to a thorough soul-searching, not only regarding this particular course but also about our basic attitudes towards training. Were we not the slaves of a pre-conceived plan? What did we attempt to achieve through the whole programme? The lessons learnt at N.T.L. Institute of Applied Behavioural Sciences suddenly took on a new light: "the task of the trainer is not to push anyone or to take him by force to some point but to be available to accompany him when he is ready." "To become available" to the participant—that is the first condition. The centre of the stage must be occupied by the participant and our eyes have to focus on *him*, not on our plans and theories.

We had to make ourselves available, because the participant was on a journey and we had to accompany him. What was the journey? Was it economic development? Or was it changing unjust social structures? Was it developing achievement motivation? By now we had become rather suspicious of all these big abstractions. One easily becomes the prisoner of concepts and forgets the only reality which really matters—*man*. We, therefore, decided to make our rural development programme man-centred. Development

now began to take on a very different meaning. In shaping it, Dr. John Weir's* understanding of growth helped us a good deal. It is this new meaning which has been guiding us in our training sessions.

* Ideas given to us in an Advanced Personal Growth Laboratory conducted by the N.T.L. Institute of Applied Behavioural Sciences at Bethel, Maine, USA. All the members of our Team have undergone training there.

Training for Development

THE MEANING OF DEVELOPMENT

What is the aim of our training? We certainly want rural development. But then what do we understand by development? To begin with, development should be man-centred. Any development work should give more importance to man than to things, be they buildings, machines, technology or even the state. By the same token any developmental approach is good if it helps man. Man has to be at the centre of development not only because he must be its chief beneficiary, but also because development essentially means *man's* development. Human development takes place when there is personal growth. Actually to us development and personal growth mean the same thing.

Personal growth means *awareness*: self-awareness, awareness of what is going on within us and awareness of the world around us; awareness of our own feelings and needs; awareness of the impact that the world around has on us and the impact that we have or could have on the world; and, in this interaction of the world and the self, awareness of our own experiences of growth as well as those blocking growth. The whole gamut of awareness runs from body awareness to the highest type of spiritual awareness. Nothing is excluded.

Personal growth also means *differentiation*. And differentiation in the biological sciences means the process of *development* in which a part of the organism is modified into a special form

or for a special function. This process goes on from the moment of conception till full physiological maturity. In the foetus the organism goes on differentiating until various parts develop into specialised organs which are able to perform specific functions. So the organism develops eyes to see, ears to hear etc. Differentiation, therefore, means development from one to the many, the simple to the complex. It is the evolution of a being towards a more complex or specialised form. The result of this evolution is the ability to perform tasks which the organism had been unable to do before. Differentiation in personal growth also means development from the simple to the complex. It implies the development of different capacities which enable us to perform higher tasks and to cope with situations which we had not been able to face before.

This process of differentiation goes on uninterruptedly unless the individual or society blocks it. Unfortunately, this growth is very often blocked. The obstacles to personal growth may be of a personal nature or there may be obstacles thrown in the way by society. The latter may be of various types: economic, political and social, to mention a few. All these external obstacles have an impact on men, often causing personal problems. For example, lack of money is an economic obstacle. But it may lead to an inferiority complex or a fatalistic attitude to life or cynicism. This is how an economic difficulty results in a psychological block to personal growth.

These obstacles, in their turn, retard the progress of society. For example, a fatalistic attitude is known to be an obstacle to progress. Keeping this in mind, when we speak of progress in the context of rural India, we pay more attention to human aspects than to its material implications. What is very important when development takes place is the fact that people *can* do something now which they could not do before; it is the fact that an inner energy has now been released which was blocked before. Economic growth is not an absolute good in itself but in some places it has become an obsession. In these cases economic progress has enslaved man instead of helping him to gain inner freedom and achieve personal growth.

So development should be measured in terms of the whole person, and personal growth should be the aim of all development. Any development which ignores this central aspect may do more harm than good. The craze for economic development, when an increase in GNP became an end in itself, with little attention given to its disastrous consequences in cultural, ecological and even psychological terms should serve as a warning. Again, the reasons why so many good schemes eventually fail should be sought in the fact that they have not paid enough attention to the personal growth of its recipients. For example, our lack of faith in the people we help might destroy *their* faith in themselves. This would mean doing more harm than good.

Conversely, any development work will be good if it helps the personal growth of the recipients, if, that is, (1) the recipients have become increasingly aware of themselves and the world they live in, especially of their capacity to transform it; and (2) the recipients are helped to remove the obstacles to personal growth. By obstacles are meant especially all those external conditions which bring about in man loss of self-respect, lack of self-confidence; all those conditions which make man lose faith in himself and in others.

As we said before, our developmental approach is conditioned by our professional limitation as educators. We want to help in development with the skills of our profession, leaving other forms of development work to the professionals in other areas. Within this limited area, we believe we have an important role to play of helping our trainees to live and work more effectively by enabling them to face and overcome the obstacles created by the economic, social or political difficulties existing in society.

Simple though this may sound, it has two implications in practice. First it means that we as educators do not decide for our trainees which way growth should take place. That is left to them. Second, this attitude presupposes an important belief which is the foundation of our educational philosophy that every individual has in himself the power to reach full maturity when the obstacles to growth are removed. This

faith is the most important element in our educational programme. We further believe that this faith can be communicated. And, indeed, it is when an individual recovers this faith that he is able to surmount the obstacles that impede his growth. This faith means in practice utmost respect for his person and his cultural universe. It means also a conscious effort not to pass judgement and a keen desire to understand them which induces in them a desire to understand themselves.

Experience has taught us that when you make a group of persons aware of their needs and of the fact that they *can* do something about them, you open the gates of an inner reservoir of energies. They then want to do something and, in planning and executing it, experience a new joy. Faith is then the most important element in our educational programme. This calls for further elucidation.

In our courses for students we realised that diffidence was fairly widespread and that it was a great obstacle to personal growth. Of course, this was hardly a startling discovery. And of the many ways to restore self-confidence we found the transactional analysis method very useful. But no matter what the method we used, we soon realised that confidence could be communicated. We actually saw people developing self-confidence and also how this effected important changes in their lives because a breakthrough in self-confidence has a chain-reaction effect. We saw shy persons turned into popular class leaders, under-achieving students doing well in the examinations and, more important, we saw that these people became eager to look for opportunities, more creative and joyful.

Self-confidence is but an aspect of faith—faith in oneself. To instil confidence in a person means to give him faith. And, conversely, the greatest handicap is lack of faith. This insistence on faith is necessary because, after all, faith is the greatest manifestation of love. When you have faith in a person you tell him not only that he cares for you but also that he is able to do the needful. Love without faith in the person loved is nothing but self-love or paternalism which turns that person into an object instead of an auto-

nomous subject full of potentialities. The greatest gift you can offer a person is to trust him. No wonder every person needs faith—someone who really believes in him.

When self-confidence is seen as an aspect of faith it ceases to be a facile, everything-is-all-right attitude. And faith is founded on a painful realisation of existing shortcomings and handicaps and on an unshakable conviction that the spirit is mightier than the flesh and that man himself is greater than the structures that he or others have built. True, faith does not ignore the past; but it gives more importance to the present and keeps on looking to the future.

Without faith in God there is no religion; without faith in the students there is no education; and without faith in oneself there is no future but only a repetition of the past. Fortunately we all have faith to a greater or lesser extent. But faith is susceptible of growth and the more encompassing the faith the greater becomes the range of man's activity. There are no limits to this, as the great spiritual leaders have taught us. And the wonderful thing is that a man with faith can communicate it to others.

Psychologists have spoken of the common psychological experience that what you expect other people to do they will in fact tend to do (McClelland, 1970). De Charms (1968) has brought out the importance of "personal causation", "the personal knowledge of being an agent of change in the environment." Therefore, to feel like an 'origin' leads to "a strong feeling of personal causation" while to feel like a 'pawn' "constitutes a strong feeling of powerlessness or ineffectiveness."

To help people have faith in themselves could perhaps be described in psychological terms. After all, psychology like other sciences analyses reality, but its analysis is cold, often compartmental, and this is reflected in the terms it uses. The same reality can be explained more vividly and tellingly using religious terminology. In any case, from a trainer's point of view it is not even the concept, much less the way it is expressed that matters but the experience of it which leads to a greater awareness. It does not matter much

whether I speak of faith in myself or whether I say that I see myself not as a 'pawn' but as an 'originator', provided I do experience my inner strength in actual practice.

Our attitude towards rural development changed along with our changing attitude towards development itself. We have already mentioned how it shifted from a greater emphasis on *economic* development to a greater emphasis on *personal* development. It became more person-oriented. In defining our attitude towards our participants we learned much from NTL trainers. But there was also another influence which helped us very much to define ourselves vis-a-vis our participants—Paulo Freire. He alerted us to the dangers and evils of a cultural invasion, (Freire, 1972) and taught us to respect our participants' "cultural universe".

Dialogue, which takes a central place in Freire's pedagogy is based on love, humility, faith and hope and leads to critical reflection. Given the participatory nature of these training courses Freire's concept of dialogue is of crucial importance. Very helpful also is the analysis he makes of the relation of oppression to submersion (Freire, 1972:27).

"One of the gravest obstacles to the achievement of liberation is that oppressive reality absorbs those within it and thereby acts to submerge men's consciousness. Functionally, oppression is domesticating. To no longer be prey to its force, one must emerge from it and turn upon it. This can be done only by means of the praxis: reflection and action upon the world in order to transform it."

Freire speaks of making "oppression more oppressive still by adding to it the realisation of oppression." Paradoxically, this realisation has a liberating effect on the minds of low caste people who after the course see reality not as a consequence of their sins but as a result of well-known sociological forces set in motion to defend the privileges of those in power. It is perhaps here that we owe our greatest debt to Freire because his analysis has enabled us to work with the weakest sections of society in a truly effective manner.

Discussing his adult literacy programme, Freire (1973: 43) says that it should be a programme which itself would be "an act of creation, capable of releasing other creative acts, one in which students would develop the impatience and vivacity which characterises search and invention." As we explained earlier while speaking about the difficulties of learning, true education has to lead to creativity. One can lead to creativity by teaching the ABC as Freire does; but one can also teach creativity by asking the group to resolve a conflict which has been plaguing them for a long time, for example, by asking the group to devise a method which will enable them to utilise cattle urine for the enrichment of the land without 'losing face' in their society.

This brings us to the ways in which Freire's theories have been adapted to the requirements of our programme. One of the topics of our dialogue with the participants is their feelings and ours. In the T-group tradition we believe that "sharing feelings with each other is more important than sharing ideas, opinions or beliefs about each other." The language of feelings is much more effective in reaching the person. Feelings take us very quickly to the real needs of those with whom we interact and enable us to perceive the underlying causes of their needs. Again feelings unite as much as ideology divides. This unity is very necessary to create a climate of trust, another important element in our courses. Besides feelings, motives also form an important topic of conversation. This enables us to know one another better and open the door to a true personal communication. When this personal encounter takes place we are in a position to speak to them about the world around them and their work. Much time is devoted to this. It provides a common platform where we all can speak and understand each other.

It may not be out of place here to add that in our programme we have not felt the need to politicise our participants in the sense of orienting them to any type of political action. We want to remain educators believing that our task is to train citizens who are fully aware of their civil and political rights, one of which is to choose their own political creed and their own mode of political action.

AIMS AND METHOD OF TRAINING

<i>Initial State</i>	<i>Transformation Process</i>	<i>Goal</i>
Diffidence	Reassuring questions Interesting activities Non-verbal warmth Sharing personal information, acceptance, concern, respect Trainer's attitudes of acceptance, concern, respect Positive feedback Helping them to succeed	Defreeze Confident behaviour with trainers Warm inter-personal support 'I'm worthy of respect' : self-respect Self-confidence
Personal blocks	Reflection on activities: how did I act? Why? Feedback by trainers Reflection on social structures	Self-awareness Improved behaviour Social awareness
Factional fights Lack of unity	Meaning of cooperation Reflection on social structures Exercises testing their cooperative spirit Reflection on their performance : role of feelings, reason Analysis of existing conflicts : analysis of facts : role of feelings Options open to them; possible solutions	Cooperation Cooperation; conflict resolution here in the group
Low agricultural technology	Scientific knowledge about agriculture Reflection on it and its application back home	Realisation of the possibility and ways to improve their fields
Low agricultural productivity	Knowledge of helps available in Govt., other agencies Experiential knowledge about decision-making : How many options open? Difficulties, possible helps, advantages... Calculated risk.	Final choice a) Individual's b) Group's

So far we have discussed the various influences which helped the evolution of our distinctive training approach. We will now explain the aims and objects of the courses and the methodology we have developed to achieve them.

The objective and means of our rural development programme could be stated in schematic form as follows:

1. To organise special courses for the leading members of a homogeneous group, preferably from a backward community of a village. As explained in Chapter 2, the reason for taking people from one village only is that the support of a group is necessary to effect change in rural India. We also insist on having a homogenous group. Which means that all should belong to the same caste or to those castes which consider themselves equal. As explained earlier it is very hard to train groups which are very heterogeneous.

Our preference for backward communities does not mean that we are restricted in our choice for we accept invitations from everybody. But in recruiting we make efforts to choose communities which are backward either economically or socially or both. Or else, our courses would be bringing benefits to those who can best take care of themselves, thereby increasing the gap between the rich and the poor.

2. To increase the self-confidence of the participants, in other words, to effect a behavioural change from a state of diffidence (we *cannot!*) into a state of confidence (we *can!*).

3. This behavioural change we believe brings in its train an outburst of creativity. To strengthen this creativity we conduct exercises to help the participants to look more creatively at *themselves* (improved personal behaviour), at *others* (improved interpersonal relationships), and at their *world* (more imaginative and creative ways of working).

4. At the social level the aim is to resolve the polarity of inferiority and superiority. The state of oppression which exists in many villages has adverse psychological reactions on the people. Our courses attempt to restore our participants' sense of self-respect so that they may overcome their feeling of inferiority before the upper castes.

5. This self-respect helps to develop a sense of identity with their own people so that conflict resolution leads to cooperation. Among the biggest obstacles to development in the villages are the factional fights which often become so vicious that those involved would rather hurt themselves than allow their opponents to win. On the other hand, cooperative effort is the only way by which the poor can make economic progress.

6. These aims are sought to be fulfilled in the process of achieving the objective of improving their *agricultural methods*. Since the majority of the participants are farmers it is very necessary that we help them to improve agriculture by using HYV seeds, fertilizers, pesticides and learning basic farm management practices.

In order to achieve these aims this is the procedure we follow:

1. *Defreezing*. The initial stages are marked by embarrassment, shyness and even suspicion on the part of the participants. Therefore it is necessary to break the ice. This is done by engaging them in external, absorbing activities and also by asking them simple questions which allow them to make themselves known and establish rapport with the trainers.

2. *Warm interpersonal support*. In this way a climate of trust is created between trainers and participants and among the participants themselves so that all the members of the group can come closer without being afraid to appear as they are. This leads to a real personal encounter, a meeting of persons. In this climate of trust it is easier for the participants to give up the defensive attitudes which stand in the way of effective learning. To achieve this, the trainers adopt an uncritical attitude of acceptance and respect towards the participants.

3. *Faith*. As repeatedly said earlier the cornerstone of our courses is faith. If we succeed in communicating faith to our participants, the latter can achieve the rest themselves. The effort is to make them aware of their own latent powers and thereby increase their self-confidence. Thus we make them realise their ability to learn new things by making

them repeat what they have been taught in agriculture, by making them succeed in exercises they were unable to do before. But the most effective thing is the educators' faith in them!

4. *Cooperation.* We also make an effort to develop the co-operative spirit in them. This can best be done when the course is already in progress, when a climate of mutual trust has already been created and a degree of self-confidence instilled into them. It is important to clarify their ideas as to the meaning of cooperation and have it tested in actual practice by engaging them in activities where their cooperative spirit will show. A very effective method of doing this is to help the group to resolve existing conflicts.

5. *Decision-making.* Before the course ends we want them to learn how to make decisions, and we also see that they make some for themselves individually and for the village as a whole. This implies (a) giving them *information* mostly about agriculture. For several days we take the participants to the Research Farm at Mogar where they learn modern methods of agriculture (improved seeds, fertilizers, pesticides, and farm management), (b) information about banking, government schemes and agro-industries and (c) practical information about decision-making with suitable exercises to put it into practice, which enables them to prepare themselves for the "final choice".

6. *Final choice.* The participants are encouraged to set *individual* and *group* goals which are concrete and which have an element of calculated risk in them. They do this after taking into consideration the various options open to them and other factors as well, like possible difficulties, likely sources of help, and the advantages and the disadvantages of any particular course of action.

7. *Follow-up.* To ensure lasting success emphasis is laid on the need of group support, relying on the group already formed and, if possible, enlarging it. For some time the trainers offer their services to keep up the spirit of the group by visiting the village. They also offer to solve any difficulties which may arise while carrying out their plans. Whenever necessary refresher courses are organised.

It will be appropriate here to explain the teaching methods that have been found more effective for the training programme.

Our training is fundamentally based on the laboratory method. To the extent that a laboratory is not the same as the reality back home, it is an artificial situation. But because it is artificial it has certain advantages. One can be more free to try new behaviours without fear of grave consequences. It is also away from home and therefore the participants are not subjected to the pressures of what often is an alienating culture or, at least, of those elements in that culture which are alienating. Being away from home also brings the participants together since they now are in an 'enemy territory', in unfamiliar surroundings. This togetherness is also a powerful means of creating a climate of trust without which no creativity can be fostered.

In a laboratory situation the participants can undergo an experience and then they and the trainers talk about it. This method naturally insists on the here and now and focuses the attention of the participants on themselves and on their actions so that they could learn something about themselves and the way they behave. It is clear that this type of education does not presuppose literacy. It does not aim to give much information but to help the participants gain insights which may enable them to function more effectively.

However, some information must be given. This is done when the participants are exposed to a more advanced agricultural technology. But even this is an experience to be talked about. What happened when the expert spoke to them about agriculture? Did they learn something new? If they did, we make them reflect on the fact that they *can* learn. How did they react to this new knowledge? This will activate a number of defence mechanisms in them and they will reject the new knowledge as "impractical" or as not applicable to their fields. These defence mechanisms then become the topic of our dialogue.

When the participants manage to overcome their defence reactions they reach a point of reflection on their work.

This may often be a painful experience and they will require a lot of support at this stage. It is the educators' duty to be there with them, to serve as echoing walls which reflect back to them their loud thinking. This is the moment of innovational creativity, the point when the participants begin to *figure out* how what they have heard from the expert can be implemented in their own fields. This stage is important because it marks the beginning of change in their agricultural methods and the beginning of a great transformation in their attitude. So far the farmer was just a puppet moved by external forces, on the agricultural stage. Now he takes over and essays the first steps towards transforming that reality. He has changed from passivity into activity from being a 'pawn' to becoming an 'origin'. This is a revolution, a new way of looking at the world and at oneself. Unless there is this change of attitude creativity is impossible and, without innovational creativity, agricultural technology cannot take roots.*

It was mentioned above that one of the subjects of dialogue is the participants' feelings and the educator's. The feelings are very important in this type of training to bridge the gap between their values and his. When we feel angry or frustrated at their behavior, it is time to introspect and look for their cause: what did we want to achieve and why? Who has to make the final choice? We or they? When these feelings are examined they help us to come closer to our participants. Actions and words prompted by unexamined emotions tend to generate negative feelings towards our participants which further alienate them from us. The result may very well be either a vicious circle or lack of authenticity on their part, together with an unhealthy desire to please us.

Team work is the last but not the least important factor in our training. We have striven hard to work as a team. We have spent well over 250 hours during these last years in T-groups for ourselves only, trying to resolve our interpersonal difficulties, work out our personal problems and find out the role which each one of us should play in the

team. We have spent hours listening to the recordings of our training sessions to criticise ourselves and develop better ways of handling a situation. In rural development team work is essential. The greatest difficulty one encounters is that of understanding the people, their feelings, their needs, even what they are actually telling the group. It is very necessary that we know the impact of our words and actions on them. All this requires keen observation. Team work becomes necessary for one man alone is likely to make mistakes. While one of us intervenes the others watch the reactions of the group. Each one of us keeps on checking his perceptions with the other two.

There is hardly any need of mentioning the advantages of team work from the point of view of mutual support and encouragement, the pooling of ideas, resources and creativity. But yet another advantage must be mentioned. We offer a model to our participants of how to work together. This model is all the more telling in India inasmuch as three of us belong to different communities and religions and have been brought together only by our profession as educators. There is no point in telling your participants that they should cooperate if you yourself are unable to do so. In making the effort to cooperate with others one learns the difficulties of cooperation and the means of solving these difficulties, and enjoys the experience of working together. This knowledge is not gained from a book and it is invaluable in teaching cooperation to others.

*See Chapter 2.

Training Adivasis and Scheduled Castes

In an earlier chapter it was pointed out that the courses as first designed had succeeded with upper caste people but had failed with poor and illiterate farmers. We were hesitant to give these courses to the weaker sections of society for this very reason. Our changed attitude enabled us to serve the poorest among the poor.

Although we have accepted landless labourers in our courses, our main effort thus far has been directed to the marginal farmers. We chose those who were *marginal* because they eke out a miserable existence, and *farmers* because they serve a national need. We need a real breakthrough in agriculture if we do not want any starving people and if the country is to prosper.

In illustrating how our new approach works with the weaker sections of society we have chosen the adivasis (tribals) and the Scheduled Castes. We have also chosen two courses which shaped up according to our expectations and one which did not. This we hope, will give, a balanced view of our performance.

TRAINING ADIVASIS

Our first illustration is a course for tribals. It was the very first course after our failure described in Chapter 3.

As we prepared ourselves for it, the very first problem we faced was our own feeling of inadequacy. Could we give this course to tribals, many of them illiterate, whose language was not Gujarati? We made a preliminary visit to the village just to ascertain whether or not we could undertake the programme. Our assessment was that we could communicate with them in Gujarati and that they were vocal enough to go through the course. The socio-economic survey, however, made us a little more sober. We realised that among the participants there would be a good many who would not be able to express themselves in Gujarati. We decided to co-opt a couple of college students who could translate what we said into their language in case of any difficulty.

Our second concern was whether we could keep the tribals who had been accustomed to roam about in the jungle or spend their time working in the fields, 'locked' up in the college. So we decided to have most of the course at the Xavier Research Farm, Mogar.

In the tribal village of Navgam there are only two non-tribal families. One is a Barot who is a landowner and the second is a Muslim family of shop-keepers. There are, however, among them about 20 families, not from Navgam but from nearby villages who have come to work in an Oxfam project. They form part of what they call the 'company'. According to this project the land they work on will eventually become theirs after a certain number of years, once they have paid for it. In the meantime they run it as a cooperative. These farmers being immigrants are more enterprising and show greater initiative. In the course also they were the most vocal. The village proper comprised about 80 families. The participants for the course were selected from the 'company' and the village. The *Vasava* or the tribal chief was also present.

We started the course by introducing ourselves and asked them to introduce themselves. Most of the participants were feeling very self-conscious and embarrassed. To overcome this embarrassment we asked them to tell us their names and from which village they originally came.

As they warmed up a little we started asking about their expectations from the course. The most courageous among them mentioned that they wanted more knowledge about agriculture—how to grow better wheat, bajri, cotton, etc.; how to make better use of fertilizers and manure. Surprisingly some even asked about the schemes the government had for Adivasis. They also wanted more information on animal husbandry.

During the first part of the course the aim was to help the group overcome their fears and improve their knowledge of agriculture. Though we succeeded in establishing some rapport with the group, it was clear that the majority looked up to us as people much superior to them. As long as this consciousness of their inferior position remained with them we thought it would not be possible to establish a meaningful dialogue. We had to break the "father figure".

As the seniormost and probably the most respected, this writer asked a college student, himself an Adivasi from that area, to come to him. He held him as tight as he could and asked him to try to free himself. As he held him tightly the eyes of the group were on them. The writer told him: "Now, we start!" In a couple of jerky, swift movements and before he (the writer) could really do much, the student freed himself. There was a spontaneous outburst of applause from the rest of the group. When the general rejoicing subsided, this little incident became the subject of dialogue. The participants recognised that they were physically stronger than the trainers. But they explained this away by pointing out that they lived in the jungle, and in an emergency had to run all the way from the village to the town.

"What is the distance?"

"Twelve kilometres".

"And you do that distance running without stopping?"

"Yes! We sometimes have to fight with the wild beasts also."

"Do you?"

"See Mansinh. He fought with a panther!"

We turned to him. As he described his encounter with

the panther, one could not but think how funny human nature is. Here was a man who had the courage to fight a panther and hold his own against it and yet was afraid of three professors. And yet others with only a little more education and much less physical strength can hold not three but the whole of the group to ransom! Mansinh was still describing his fight and showing us at the same time the marks that the animal had left on his body.

"You seem to take physical strength for granted. You do not seem to be very proud about it. Do you?"

"This is natural for us. What is it to be proud of?"

"But you seem to be overawed by education."

"Well, of course. You are educated, we are illiterate."

"If you live in a jungle you become strong. If you are the whole of your life in a college you become educated. Isn't the one as natural as the other? You can face panthers; we cannot. We can read big books; you cannot. But, in the end, what is the big difference?"

We were coming closer, the ice was breaking. We attacked fear in yet another way. We made them play the ring-toss game. When it was reflecting over the game, the group recognised that because of fear many of them had not played it properly. We left it at that. But later we made them play it again and this time it was played very freely, some of them even taking big risks. When they were reflecting on the game, this is what they told us:

"This time we were not afraid."

"Now, tell us, was there any good reason why you should have been afraid the first time?"

"No. But we did not know."

"O. K., you did not know. But there was no reason to be afraid. Then, what was the cause of your fear?"

A couple of people pointed a finger to their head.

"Imagination, isn't it? Now you know. In this course there is no reason to be afraid."

"But suppose we make a mistake?"

"In this course nobody makes mistakes. You act as you would normally do. And then we reflect on our behaviour. That is all."

We were making progress: but one could still feel that there was something that was holding them back. We began to realise that it was the language problem. We then allowed them to speak in their tribal language. But somehow they felt it their duty to speak in Gujarati. Finally, we forbade everybody, except the instructors, to speak in Gujarati. Anybody who did not speak the tribal language was cut short and forced to speak it. The change was amazing! For an hour and a half they kept on telling us of the things they had learned about farming etc.

They had conquered their fear.

Nevertheless we used another exercise to make them realise the effect of fear on their performance. The exercise was to pile up cubes with blind-folded eyes. We asked for volunteers. One came forward. We asked him:

"How many can you put up?"

"Nine."

"Are you really sure", one of the trainers asked sternly.

"Eight, eight."

"Eight? Remember you'll be blindfolded!"

"Well, let us bring it down to six, O. K.?"

Eventually he brought it down to five. He had no difficulty in piling them up. Without telling him we kept on adding as many as 13 cubes. He asked no questions. He just kept on piling up cubes one on top of the other without much difficulty.

When the group talked about this incident, several points were discussed—how easily are we frightened by someone who knows when we do not know, and how wrong our presupposition usually is that we have less ability than we actually do.

The second area we wanted to work on was the improvement of their agricultural methods. While the Director of the Research Farm talked to the group, the three trainers sat along with them. Whenever we felt that something had not been understood we would ask for clarification until they, too, got into the habit of asking questions. On occasion, one of us would repeat in different words what the director had said. At the end of each talk we would take the group sepa-

ately to talk about their newly acquired agricultural knowledge. This dialogue served to hammer in the lesson while they themselves repeated it. And it also gave them an opportunity to think about the possibility of applying the new knowledge to their own fields. This was, therefore, a time for both recollection and reflection. Finally, at this time we made them aware of the tremendous facility they had to learn. And indeed it was remarkable how accurately they could repeat whatever they had heard! This awareness helped a lot in building up their morale and self-confidence. It was an experience of success — "I really can!"

This village has a special difficulty. Being a mountainous region there is a lot of soil erosion there. We therefore invited the Director of Xavier Farm to accompany us to the village to spend the last day of the course with the group. The participants went ahead and each one of them was told to study how they would solve this difficulty in their own fields. We went around and each participant explained his solution. Sometimes the Director had to come in and help with more difficult technical problems but by and large most of them gave the appropriate solution.

Although most of the course was given at Xavier Farm, we did not forget to take our participants to Ahmedabad. We were very keen to have them meet high officers for the reasons mentioned earlier.* In this group there was a particularly meaningful dialogue between them and the Deputy Conservator of Forests. Some of the participants thought that to meet a government officer was to have him grant everything you asked. But a government officer has a duty to all sections of society and it is the common good that must prevail. By allowing them to cut down the trees of the jungle the country as a whole would suffer and therefore government had to put restrictions. And, after all, he asked them: "Who makes money in the whole operation? Is it you or the merchants?"

These were the highlights of this course. As we reflected on it, certain important points emerged.

*See Chapter 3.

1. This course made us very happy. We had considered it particularly difficult. Our participants were tribals, many completely illiterate, most of them had never left their village. To a smaller or greater degree language was a difficulty with them all. So far we had not developed skills to handle people like them. At the end of the course, however, we felt that we had been able to communicate with them, to establish a friendly and even warm rapport with them and, in the process, to learn about their lives and share with them some of our skills.

2. By having the course on the Farm, the cultural shock that they might have experienced by leaving their village was minimised. After all we were all by ourselves in the fields. And, of course, being in the farm was educational in itself—looking at the various crops, the levelling of the fields etc. It also gave them an opportunity to do physical work which they needed.

3. In our exercises at the beginning of the course we focused our attention mainly on the problem of fear and we made determined efforts to help our participants conquer it first in dealing with us and then in facing the situations which we created for them. I think that this policy paid high dividends not only in terms of higher participation of the group but also in developing a healthier and more courageous way of facing their problems at home.

4. By reducing their fear and increasing their self-confidence the main obstacle in the way to learning was removed. This was achieved by combining the practical agricultural knowledge given by the expert with our own psychological inputs. This technique, further refined, has proved very successful in subsequent courses.

5. Another big breakthrough in this course was our insistence that the participants speak in their own dialect. The difference in the quantity and quality of participation was truly remarkable.

TRAINING SCHEDULED CASTES

The term Scheduled Caste applies to several, distinct low-status groups. Our training was given to only one of

them called *Vankars* or weavers. The number of participants in the first course was 29. Although they were all Vankars, by religion they belonged to two groups, one Christian and the other Hindu. Their village is a fairly large one in the Bhal region in Gujarat. The soil there is very good for agriculture, but since the subsoil water is brackish they have to rely mainly on rain water for their crops. By the time we held this course we had grasped the importance of agricultural technology and much of the course was devoted to it. The fact that we just mention it does not mean that we do not attach importance to it. The purpose in describing these courses is to give a clearer idea of how one course differs from another. In all the courses we dialogue with the participants but the subject matter is always different. It is these differences that will be the focus of the following description.

THE FIRST COURSE

The group in the first course concentrated on two points: concern regarding the many ways in which they were exploited and a desire to achieve unity as the best means to liberate themselves from oppression and also to achieve some economic progress. These concerns surfaced right in the very first session when we usually ask the group what they expect from the course. Another concern voiced was the need to improve their agricultural methods and to reduce their indebtedness.

In response to their concern about exploitation they were asked to identify those who had the resources in their village, i.e., had power, money and prestige. In analysing the social structure of their village, the participants came to the following conclusions; (1) they had no power; consequently, (2) they were unable to satisfy their legitimate needs; (3) they were often treated unjustly by others; and (4) the only way out of these difficulties was to unite themselves. At this point we wanted to make the group aware of the problem of self-respect, but since there was no response from the group, this problem was not pursued.

It is one thing to accept in principle the need for unity and quite another to achieve unity. Our effort as trainers at

that moment was to allow differences and divisions to surface and later to help the group resolve them. The main division within this group was along religious lines. The Christians in the group were fewer in number but they were better organised and had better leadership. That was the case in the village as well where there were two religious organisations, one Hindu and the other Christian. Both held meetings but while the latter attended them, the former did not. The Christians were not slow to point this out proudly to the Hindus who naturally resented it. This rivalry had driven a wedge between the two communities and the Hindus in general were a little suspicious and even wary of the Christians.

On top of that there was an unresolved conflict. The Vankar community jointly owned a piece of land which was leased to a third party for cultivation in return for half of the produce. The previous year, however, the Christians decided to cultivate the plot of land on their own. Since no agreement could be reached the Christians decided to cultivate the part of the land that proportionately should belong to them. The rest was given for cultivation to the brother-in-law of the main leader of the Vankars. At harvest time, while the Christians distributed the whole crop among themselves, the farmer who had tilled the land for the Hindus gave half of the crop of bajri to their leader. He refused to distribute the bajri on the ground that the Christians too should have given half of their share and the total amount distributed among them all. At that time we did not know all this. But we did notice that the Hindus were not taking an active part in the sessions. We therefore decided to divide the group along religious lines.

The Hindu group was a little suspicious when they were told to meet separately. The reason for this separation was explained by the Instructor who stressed the fact that so far they had taken very little part in the activities. They agreed and pointed out that there was a reason for it. They were afraid of the Christians and especially of their leader Shilanand. In the past he had not given food-for-work to their main leader and his followers mainly, they felt, be-

cause of what had happened with the bajri. Now, they felt, if they said something which he did not like he might again penalise us.

It will be useful here to describe the leadership pattern among the Vankar community in the village. The Vankars have six leaders (*mahetar*), each having authority over about 10 families. Matters of common interest are decided by all the leaders, though one of them is accepted as the main leader. These leaders are all Hindu yet among their followers there are some Christians. On certain occasions like marriage, disputes etc., the leaders play an important role. Therefore not even the Christians can do without them.

In addition the Christian community has its own leaders, one of them being Shilanand who was attending the course. Only one Hindu leader and the son of the main leader were in the course. Now Shilanand had considerable power because the Catholic priest of the area had been instrumental in starting some relief work in the village. The implementation of this work was entrusted to Shilanand. It was to this that the Hindus were referring. One of the six leaders and all his followers had been deprived of food-for-work by Shilanand. This was interpreted as an act of revenge and was the reason why they were afraid to speak in his presence.

In the Christian sub-group, on the other hand, the discussion took a different turn. There was a list of complaints against the leaders but these were variations of a single theme: if we could get rid of these leaders things would improve considerably. The instructors turned the attention of this sub-group to the real options open to them. Could they really fight against the leaders? They knew very well that the leaders would then turn to the Rajputs for help and that would be bad for all of them. The Instructors also pointed out that there seemed to be a power struggle going on. What was the point of fighting among themselves? Who would profit from it? This question now became the central issue for the rest of the course.

The following day we had a joint meeting of Hindus and Christians. This time the Hindus took much more active

part but it was mainly to air their internal grievances. But soon the whole group started moving in the direction of unity and its requirements. During the day they held a number of informal meetings to set up structures which would help them to achieve greater unity. The solution they were trying to work out was to have a common organisation for economic and social purposes while the two religious associations (Hindu and Christian) would be exclusively for religious purposes. The idea was approved in principle but there was a practical difficulty with the Hindus. While the Christians were very clear as to who should be their leader, there was no one who was acceptable to all the Hindus. Moreover, they could not agree without the approval of all their *mahetars* (leaders), or else the latter would sabotage the whole scheme.

As we moved to Ahmedabad from the Farm, Shilanand, the Christian leader had to leave us. His absence led to a curious development in the group. To our surprise a power struggle soon took place to fill the vacuum created by his departure. The first sessions went on smoothly but by afternoon, it became clear that we had lost contact with the group. Since our first reaction was to associate this with the activity going on at that time, we cut it short and went into consultation. Some of our participants were not involved, some had withdrawn psychologically, others gave signs of a veiled hostility. Should we change the activity? On reflection we concluded: "If we have lost contact with group, the important thing is to re-establish contact with it. We must know what is wrong. And the best way is to allow them to talk." This is exactly what we did. Our silence created a double power vacuum and one of the Christians, Natu, took the initiative to assert himself over the group. First he fought with other participants until he had them apologise to him. After this victory he turned towards one of the trainers to argue about a point. We refused to be drawn into the power struggle which had taken the shape of a verbal duel. Ours were short interventions to make the group aware of what was happening. So far the group had tried to patch up the differences between Hindus and Christians, but now that the undisputed Christian leader

had left, another Christian wanted to establish his position by fighting his fellow participants and challenging the education.

Looking back on that day it is easy hindsight to map the development of events, though we were baffled when we were first faced with the situation. The group had moved from disunity to unity and during most of the morning our activities had taken place smoothly. In the afternoon when the trouble started we were in the midst of an activity. Hostility is something one encounters in a T-group* as a matter of fact. But a sudden yet subtle boycott of on-going activities so late in the programme was rather unusual and frankly irritating. Our decision to stop our activities, get in touch with our feelings and then make an effort to re-establish contact with the group, led us to change a structured into a totally unstructured session. We moved into a sensitivity training group.

It was a good learning situation. But as long as the contenders for power had to face the whole group, they would find it very hard to accept and reflect on their behaviour. Besides, there were many silent spectators. We divided the group according to age much to the relief of the younger people who welcomed the opportunity to be all by themselves. For some it was the first time they dared to speak. Those not involved in the power struggle found it easier to understand the whole situation but others were very defensive about the incident. With time and patience the whole group became more aware of the dangers arising from power struggles or, as they would put it, 'keeping up one's own prestige'. If group unity had looked easy at one moment, this incident showed them the other side of the coin. There were still deep divisions within the group and our assessment was that unless the problem of the bajri was solved the struggle would go on. So it was decided to make an attempt to solve the problem by concretising it and discussing the issues as objectively as possible. After a joint examination of the problem the following picture emerged.

*A T-group is an unstructured form of training where the trainers do not lecture but merely reflect on what is actually happening in the group.

The total number of households belonging to the Vankar community were 76. Of these 14 were Christian who had cultivated their share of land in the jointly-owned plot. Their claim was that the whole produce of the land should belong to them since both the labour and the property was theirs.

The counter argument of the Hindus was that one could not cultivate the land without permission from the leaders. This had not been granted. Therefore, the Christians should give half of the produce to the leaders and this would be added to the share given by the brother-in-law of the main leader who had cultivated the rest of the land. This share of bajri had not yet been distributed because the leaders had insisted on the Christians giving their share before the distribution took place. Since the total amount of bajri given to the leaders was 520 kgs. the amount to be given by the Christians would be 280 kgs and the total amount to be distributed would be 800 kgs.

One possible solution could have been that proposed by the Christians, i.e., we do not ask for our share but we do not give our share either. In this case the Hindus would have lost only about 6 kgs. of bajri per person. The Hindus objected to this course of action not so much because of the amount involved but because of the number of people involved and the fear that others would believe that the Hindu participants in this group had been pressurised by the Christians. On the other hand the Christians now said that their bajri had already been consumed. In terms of money, if they were to give their share, it would amount to Rs. 30 per person. In other words the Christian families would have to give Rs. 420 to the others.

At this moment we made them reflect on the losses they were incurring because of the fight. Because of a maximum of Rs. 30 per person they were not coming to an agreement over the land which would produce as much as Rs. 76,000 a year. This would mean Rs. 1000 per family. In other words for the sake of Rs. 30, each of them was losing Rs. 1000! Again, the bajri was not being distributed and was getting spoilt or being eaten by rats while the hay had also been stolen. These losses were all due to their lack of unity.

The Hindu participants then said that they were ready to forego their share. But what about those at home? It was at this moment that one of the Christians proposed that the Christians pay up Rs. 30 per person provided the others agreed to cultivate the land themselves (i.e., all the Vankars on a co-operative basis). The Hindus replied by saying, "Well, if we tell our people that you are ready to pay they will not ask for the money, they may be satisfied with the gesture."

The end of the meeting was marked by a great sense of euphoria and joy and one could feel that a new step had been taken towards unity. It was, however, only the first of many more important steps that would have to be taken back home. But this forms part of the follow-up work which is described in Chapter 6.

THE SECOND COURSE

Three years ago we would have described the second course for Scheduled Castes as a failure. And the tendency to do so is still very strong. For all our statements on development and our belief in the idea of personal growth we are still impatient with people. The course we are going to describe now was a brave attempt on our part to be always with the participants, no matter what their pace was, nor what their choices were. It was a continuous effort to open up the channels of communication. To the extent to which we failed to do this (and we cannot claim to have been successful all the while), our course was a failure.

During this course we had to overcome a number of difficulties. The very first one was that of recruitment. The contact with this village, in a district of the Saurashtra region had been made through a member of a Trust that had been helping these people. This was our first difficulty. The villagers were conditioned to see the city people as "givers" of help. This mentality haunted us during the ten days of the course. Recruitment was left to Kantibhai an accepted leader among the poorer people of that village. Since this course was organised at a very short notice, we

were not able to go around and explain our aims and methods. Kantibhai took it upon himself to recruit more than 20 participants, the minimum we had insisted on. In his zeal to reach the target he spread his net far and wide and brought along people from various castes. These were few in number but enough to inhibit free communication among the rest.

From the very first session, this group showed great interest in receiving material help. They wanted a deep tubewell to provide the village with sweet water. They wanted houses built in their fields, and training in agriculture.

It was instructive to see how the leader of the group, Kantibhai, reinterpreted to the group what we had said if this did not agree with *his* ideas about the course. And so whenever we insisted that all we could give them was training, he would tell the group: "If you learn what you are taught and pass the examination you will receive whatever you need."

As the course progressed it became clear that they wanted two things: material help and conversion to Christianity. All that we said and did was interpreted accordingly. Thus, for example, during the ring-toss the word spread around that the longer the distance chosen the more the money that would be given. Clearly we were pulling in different directions and as a result there was a breakdown in communications.

Again we made an attempt to make our position clear. "We are educationists", we said, "and all that we can give you is training." While explaining this at length one of us drew circles on the blackboard. The explanation over, we left the meeting place hoping that we had made our point clear. As we walked out one of us was approached by Kantibhai. "I know what those circles on the blackboard mean," he said. There was a slight pause, an anxious look at the instructor and then he continued with a smile: "They mean that we should come into your circle, your religion." This remark amused us a little because the instructor in question was a Muslim and Kantibhai was referring to

Christianity. But for this amusement, our reaction was one of dismay. We were simply not communicating.

That same day we were reflecting with the group on the losses made in a simulation game, and we explained the factors which should be taken into consideration for a good decision. Then, suddenly, like a bolt from the blue, Kantibhai's voice was heard: "All these things happen because you are not united and, as a punishment they do not give us help." It was clear that we would not be able to communicate with the whole group. Accordingly, we decided to form three small groups in this manner: one group would be made up of the most vocal members, the second of the younger participants, and the rest would form the third group.

The vocal group drew up a long list of requests for material help. The younger group had realised the need of training and complained that the 'elders' had come with a fixed idea from which it would be difficult to make them move. The third group was very quiet for a long time. But when the only non-scheduled caste happened to leave the place they became more vocal and candid about their concerns. They mentioned how they were despised by other castes and constantly humiliated. Then they went on to say: "The best remedy is to leave Hinduism and become Christians. Whenever they ask us what caste we belong to, we shall be able to say that we are Christians. That is all."

We were beginning to communicate, at least with some of the participants. It was made clear that this course was not meant either to give them material help or to make them Christians and that the purpose of this course was just to give them training. From then onwards some of the participants became more involved in the course activities. We took advantage of this to play the simulation game in which they had big losses. As we explained things all over again, we tried also to instil confidence in them with a pep talk: "You are now convinced that you cannot do it. But that is not true. You CAN do it. Come on, make up your mind and say, 'We can!'" and let us see what happens."

They agreed and we played the simulation game a second time. They did it differently this time: they got together, helped each other and made a big profit. This experience provided ample matter for reflection and dialogue.

It was now time to take them to Xavier Research Farm and give them some training in agriculture. During the first day at the Farm the group seemed interested and involved in the explanations given by the agricultural expert. But it did not last long. Soon the participants were again divided into three sub-groups, those who wanted conversion, those who wanted material help and finally those who wanted to learn. Again we divided the group accordingly, but this time the elders objected. "This procedure is followed only when someone accused of a crime is taken for cross-examination", they said. "Have you taken our youngmen into custody?"

By now we had realised that unless Kantibhai changed, very little would be done in the group. Maybe we could meet him alone and talk things over, explaining our point of view and trying to find a common ground where we could meet. "You are the unquestioned leader in this group," we said. "The others believe what you say. If we work together, something will be achieved. If we work at cross purposes the course will be a failure. To that extent, you have a great responsibility. We have no money to help you. Our duty in this course is to train you and nothing else."

Until now he had listened in apparent approval. But when we said that last sentence he protested that he would not accept that this course was meant just for training. He used every argument to convince us, from stubborn resistance to fear. At one point he turned to me, the only Christian in the team and, with the smile of a soldier who senses victory, asked defiantly: "Do you mind if I become a Christian? Can you object to that?"

"Not in the least, Kantibhai. But if what you mean to say is that conversion should be part of this course, then my answer is negative. Everything has to be used for its own purpose, food to eat, spades to dig and books to read. If I were to use this course for another purpose I would be wrong

and I would be committing a sin in the name of religion—a horrible thing to do."

This reasoning seemed to impress him and he asked what his responsibility was. "Just tell the group that no matter what might have been said before, the aim of this course is to learn and nothing else", he was told.

To avoid unnecessary embarrassment we let him explain the situation to the group. We rejoined the group when he came back telling us that everything was now all right. In the group it was clear that Kantibhai had not conveyed the message. But, by now a number of people had become impatient with Kantibhai's stubbornness. We let the group talk things over. It lasted all morning and part of the afternoon. In the end the pleas to have training became so loud they could not be ignored. The agricultural expert was recalled and he joined the group rather despondently thinking that these people were not interested in agriculture and that nothing could be done about it. He was in for a pleasant surprise.

Those who wanted material help and conversion had not been convinced; they had only been silenced by the others. This difference of opinion kept the group divided till the very end. But some learning was taking place. This became evident when we conducted a brain-storming session. The question that each one of the four sub-groups was supposed to answer was, "How will you achieve development?" The sub-groups managed to generate 112, 85, 82 and 75 ideas respectively. As the sub-groups proceeded to choose the four best ideas from their lists a new list was ready for the whole group. The participants decided that they would vote on each one of them. The result of the voting was interesting:

First preference: to keep accounts

Second preference: to grow trees

Third preference: to bund the fields and make use of manure.

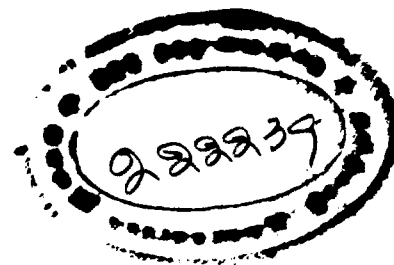
Fourth preference: to form a cooperative

In reviewing this course it would be useful to recall the difficulties that had to be faced. The first one was that, although the majority of participants were Vankars, there were some who belonged to other castes. This made it

difficult for the villagers to speak about their problems which would have created a common platform and served to unite them. The second difficulty was that these people had already been conditioned by other agencies to receive material help and had been attracted to this course by the hope of receiving more. While we tried to understand their position we told them frankly about our constraints. The frankness and patience we managed to maintain was a sign that we, too, had learned from past experiences. The one thing that made us sad during the course, however, was the fact that some participants did not believe what we said. This wall of distrust we had managed to break on other occasions at a relatively early stage. In this course, if it was broken at all, it was only right at the end.

This story ends as it began. This experience made us sad. And deep down in our heart we felt that we had been unfair to the participants. It was only when we conducted the evaluation that this truth dawned on us. But this experience will be analysed in a later chapter.

Follow-up



6

According to our plan we were supposed to pay a monthly visit to each one of the participant villages as part of the follow-up work. As against these rather sanguine expectations of ours, Table 6.1 shows our actual performance.

Table 6.1: Follow-up visits of participants in the 1973 courses

Course	Village*	Participants	Follow-up visits
1st	Ekipur	23	4 (1973 : 1 ; 1974 : 2 ; 1975 : 1)
	Dwipur	3	2 (1973 : 1 ; 1975 : 1)
2nd	Tripur	24	3 (1973 : 1 ; 1974 : 1 ; 1975 : 1)
	Charpur	3	
3rd	Panchpur	21	3 (1973 : 1 ; 1974 : 1 ; 1975 : 1)
4th	Chhapur	24	13 (1973 : 1 ; 1974 : 6 ; 1975 : 6)

*pseudonyms used.

The aim of the follow-up visits was to consolidate the work that had been done during the course itself. While the participants were setting up their goals they were told that we would be visiting them again. This, it was hoped, would be an added incentive to better performance. On our part, these visits would serve not only to keep in touch with our former trainees but also to provide us feedback on our performance in the courses.

That these visits helped the participants is, we believe, generally true. They took pride in showing us their achievements. A poor Thakore from Tripur told us that, after some efforts to improve his fields, he finally gave up and handed

them over to a relative of his and decided to look for new work. He conducted a rough market survey of his own by accompanying village traders to town and there inquiring about their needs. Eventually he set up a new business. He said, "Every time you came, I heard the Patels telling you all the great improvements they had made after the course. I could not emulate them since I have no irrigation facilities, as you know. So I gave charge of the fields to my brother and started this business." As he spoke he pointed to his clothes and smiled. He was not longer wearing poor clothes.

Our follow-up visits to Tripur and Panchpur were always joyful occasions for both trainees and us. Our task during those visits consisted largely in admiring the progress made by the former trainees. Dwipur and Charpur each with only three trainees stood in marked contrast to the other villages and frankly, did not give us much incentive to visit them. [More will be said later about this practice of giving a course to participants from two villages.] Originally, we had planned to cover as many villages as possible. To achieve this we conceived the idea of having satellite villages, that is, a big village where we would concentrate our efforts and a smaller adjoining village with a few participants to act as contact men who would allow the influence of the bigger village to percolate.

Ekpur had a very good start; (the course is described in Chapter 3) but then for two years there was drought and in the third year too much rain damaged the crops. These natural calamities affected the morale of our trainees and there was a marked shift in their concern from improving agriculture to an obsession with a tube-well to secure a permanent means of irrigation. Given their experience one could hardly blame them. But things are beginning to look up again and we hope to call them back for a refresher course in agriculture.

The Charpur course was the first given to lower castes, mainly Thakores and Bharvads who compared to the Patels were economically backward. Unity and cooperation are central in all our courses, but they become the dominant themes when the courses are given to the weaker sections of

society. Unity is good for all but for the poor it is the only hope of salvation. During the course itself there was a mild attempt to form an irrigation cooperative. Since most of the participants were small farmers they qualified for a government scheme which gave 50 per cent as grant and 50 per cent as loan to small farmers' irrigation cooperatives to sink a tubewell. In the follow-up visit it was realised that more work would have to be done to induce a sufficient number of them to join the cooperative. It was decided to call them back to the College to consolidate and strengthen the work started during the course.

Here for the first time follow-up meant more training to build on the foundations laid in the first course. As a result the cooperative was formed and work started to complete all the formalities required to set it up and receive from the Small Farmers Development Agency (SFDA) an outright grant of 50 per cent of the expenditure plus loan facilities for the rest of the money. The scheme looked very attractive to us when it was proposed to the participants by the Chief Officer of the SFDA project in the District. Therefore when the participants decided to go ahead with the scheme, we thought it well within our aims to help them in doing all the paper work and going to various offices. What follows is the story of a long (more than two years by now) and, so far, unsuccessful fight with the bureaucracy.

In January 1974 we went to Charpur and then to the district headquarters to see the SFDA Officer. All the administrative requirements were clearly explained to the participants who were with us and clear instructions given to them. When they got working on the application forms they encountered difficulties with the Talati and Sarpanch of Charpur itself and also at the taluka offices. In February 1974 we again went to see the SFDA officer and explained what was happening. He was kind enough to accompany us to the taluka office. Evidently, there was some mysterious hitch because in the course of the conversation the TDO* called the SFDA officer apart to talk with him privately. When we were returning from the office the SFDA officer

*Taluka Development Officer.

was very apologetic and promised that now things would move fast. Five months later, on July 30, 1974, we were told by the former trainees that all necessary documents had been filled in and duly submitted. Everybody was hopeful.

Another five months passed and still nothing happened. We again went to Charpur and found our participants in a pessimistic mood. "We go from office to office and nobody gives us a satisfactory answer. What can we do?", they told us. Again the SFDA officer generously offered to come with us to the taluka offices. This time a clerk in the Land Development Bank insisted that he had issued the forms but they had not yet been completed. This was denied by our participants. In any case, the SFDA officer gave orders to the clerk to take the forms and have them filled in by all the members of the cooperative. We accompanied the clerk to Charpur. On reaching Charpur the clerk quietly produced from his bag all the forms which had already been filled in by the participants! To excuse himself he made some remarks on the way the forms had been filled in, yet there was no need to do them all over again, nor even to correct them. He told the participants to see him at the office on Monday.

Twenty days later we again went back to Charpur. By now the participants were really annoyed. "We spend money, time and energy and these clerks do not give us any information." We took them to the same clerk. He said that they had not furnished all the details.

"What is missing now?"

"They are supposed to answer all the questions. Otherwise I shall land into trouble..."

There followed a long discourse on his responsibility and the lack of understanding of these people.

"But, now, what is missing? Kindly tell us!"

"I have told them so many times. But these people..."

We insisted on his giving us an answer. And finally he did. When our participants heard his answer their reaction was immediate:

"Is this what you need? Such a simple thing? The way you explained it to us, it sounded so complicated!"

February to April are very hard months for us. We have to prepare and conduct the village courses. So Charpur was forgotten for a while. Nevertheless, in April we were again at Charpur and it was the same story all over again. The SFDA officer again accompanied us to the TDO's office. There the Extension officer blamed our participants:

"They have not given me the proper information."

"What information do you require?"

"The land ownership deeds."

"But that is precisely what we have been asking *this* office to give us!"

The SFDA officer again gave orders to the Extension officer to have all the papers ready immediately.

One week later we were at the TDO's office. Not only the papers were not ready but there was now a *new* requirement, a blueprint of the area where the well was to be sunk. This had to be issued by the TDO's office and countersigned by the Executive Engineer's office.

"This will take time," they said. For once they had spoken the truth. One month later we went but the papers were not ready. We again went four months later but again the papers were not ready. It was now October 1975. In the meantime new difficulties had cropped up and we were informed that the site of the well could not be approved because a Patel had his plan approved and his well was nearby. How could a newcomer have his plans approved before ours? The bureaucracy has an explanation for everything. A notification was sent to our people saying, "Your application has been lost. Kindly send us a fresh one." The new one, naturally, had a later date than the Patel's. Consequently, our men lost not only their turn but also the Rs. 50 paid to the overseer for the blueprint of the well site. Now a new blueprint would be required.

In the process the Cooperative Extension Officer had given the participants a paper which apparently had to be signed by them as part of the procedure. One of them took the paper promising to have it signed later and returned. It was a letter cancelling the application! Armed with it, we went again to the TDO's office. Again the same speeches by

them on the incompetence of our participants and polite silence on our part. The letter was handed over to the TDO with the remark—"May be after all it is not entirely the fault of our participants?"

"A foolish thing like this should never have been done!" was the only comment he had to make, promising that all the papers would be sent to the District Headquarters within two days. The papers *were* sent early enough, but with incomplete information. They came back to the TDO's office. This was how the situation stood in November 1975. This narration spans a period of two years and seven months. During this period our team visited the place thirteen times.

The year 1974 was a difficult year for Gujarat and a bad one for us. Popular discontent erupted early in January, giving rise to the so-called *Navnirman* agitation. Curfew and police firings plagued our city for a long time and it was not until the State Assembly had been dissolved in March that conditions limped back to normalcy. In this period of uncertainty planning for these courses became a luxury which could not be afforded. The colleges were closed down early in January.

Our main work in this village project is done precisely during these months, February through April. When conditions became normal in mid-March we tried to make up for time lost. But recruitment, always a difficult task, became in these circumstances almost impossible. Two villages that had previously agreed to come sent word that they would not since conditions in Ahmedabad "are not safe." Table 6.2 gives the rest of the story.

Table 6.2: 1974 Courses and their follow-up

Course	Village*	Participants	Follow-up Visits
5th	Athgam	17	Course not complete
6th	Navgam	25	2 (1974: 1 ; 1975: 1)
7th	Dashgam	15	3 (1974: 2 ; 1975: 1)
	Gatgam	4	2 (1974: 1 ; 1975: 1)
8th	Bargam	10	1 (1974: 1 ; —)
9th	Bhal region	24	Participants belonged to various villages from the Bhal area. No follow-up work was envisaged.

*pseudonyms used.

The Table shows two clear failures. The course for Athgam has already been described in Chapter 5. The course for Bargam was also a failure, mainly of recruitment. This village was contacted through one of the college students who meant well and wanted his village to prosper. In the agitated circumstances of 1974 the real situation in the village could not be assessed. The Patels (for whom this course was intended) were badly divided. Jealousies, fights and mutual recriminations, we came to know later, were their daily diet. Our contact man, however, impartial and above party struggles though he tried to be, could not be seen by the other group in that light. His initiative was the initiative of *his* group, something to be boycotted by the other. Out of a false sense of loyalty to his village this student did not let us know the reality of the social situation in the village. Till the very last moment he hoped against hope that a sufficiently large number of people would be persuaded to join the course.

We were dismayed at seeing only ten people and we wanted to cancel the course. But the ten pleaded with us. "How can we return to our village without the course? We shall be the butt of endless ridicule."

Perhaps we were not ready to handle a group of only ten people whose main concern was to avoid ridicule when returning home. Our courses were designed for bigger groups. But to this writer this was a case where the battle was lost even before it was fought. For a few days some attempts were made with the group; but we soon gave up. It was our second and, to date, last failure. Later on, we were faced again with a similar situation when participants did not turn up in sufficient numbers. But we politely declined to conduct the course. It is not only a question of design but also of their future influence in the village. What can ten people do against so many odds?

There is a silver lining to every cloud and ours in 1974 was Navgam and its 25 participants whose performance is discussed in an earlier chapter. In our first follow-up visit to Navgam the agricultural expert accompanied us to inspect their fields and to give them further suggestions.

Our follow-up visits were as joyful as the course itself. This village has the distinction of having the highest rate of economic increase of all our villages. 1974 was not such a bad year, after all.

If the 7th course was not successful enough, it was due to our inexperience. We had not yet realised that heterogeneous caste groups were very difficult to handle and in this group we had a heterogeneous composition of Rajputs and Scheduled Castes. But this was not the only handicap. Our contact man in the village, a student of the college, did most of the recruiting work through Dashgam's Yuvak Mandal (Youth Association) of which he was a leading member. This youth association did an excellent job in recruiting younger people but failed to attract the more influential members of their own caste. The course remained mainly a Yuvak Mandal's activity and failed to have much impact with the rest of the village. Fortunately, some of them were old enough to take care of the fields themselves and somehow to salvage this course.

Our participants did learn from us something we ourselves are not very good at to deal effectively with the bureaucracy. These people knew about soil analysis and had even sent samples through their *gramsevak* to the government laboratory. No report was received. But after our course they were not ready to take a *no* for an answer. They appealed to the TDO. He, too, was not very sympathetic at first. But they insisted. "Sir, if justice is not done to us here we shall go to the DDO and if necessary to the State Minister." That was enough to motivate the TDO who transferred the erring *gramsevak* and sent a more duty-conscious person in his place. One good result of this inter-caste course was that all the castes of the village agreed on the need to grow trees to prevent soil erosion by the wind.

Nothing has been said so far about Giargam. There were only four participants but they were all wonderful: quiet, eager to learn, brought up in the school of suffering and adversity. In our first visit after the course, they could not offer us even water—so undrinkable and muddy was it. In that year (1974) of total drought their economic condition

was desperate yet their spirits remained undaunted. First they wanted to know whether it was advisable to start a salt industry since Giargam is on the coast. But there were transportation difficulties and the idea had finally to be given up. Then on their own they made contacts with some traders in the taluka town and started a little industry to perforate semi-precious stones. This brought to them a monthly income of Rs. 150. By the time of the second visit, conditions had improved immensely. Their fields could now be irrigated with canal water and they would no longer have to depend so much on the vagaries of the monsoon.

Our ninth course, properly speaking, does not belong to this project. Since it recruited participants from a number of villages, it could not be considered a village project. We carried out no follow-up work with these participants. This course was organised to make up for the lack of participants in the previous courses and also to prepare the ground for future courses in this area. The two or three participants would not be able to exert much influence in their village but at least they could prepare the way for future courses in their village. And indeed two of the following year's courses were organized by participants of this course.

If the stars were against us during 1974, they were certainly propitious to us in 1975 as Table 6.3 shows.

Table 6.3: 1975 Courses and their follow-up

Course	Village*	Participants	Follow-up visits
10th	Chaudbad	29	4
11th	Pandarbad	12	1
	Solbad	12	1
12th	Satarbad	23	2
13th	Dashgam-Kharland	37	1

*pseudonyms used.

The recruitment of participants for the courses was relatively easy. The participants of Chaudbad and Dashgam-Kharland had been prepared to join the course by the alumni from the Bhal area course. Pandarbad and Solbad came at the invitation of taluka government officials and Satarbad's participation was the outcome of the

suggestion of a social worker who was organizing relief work in that area.

If the recruitment work was smooth enough, the courses too made us happy. The courses for Chaudbad and Satarbad have been described in detail in the previous chapter. Our work with Chaudbad, however, did not end with the course. We returned to the village a couple of times to consolidate the gains and bring them to fruition. As described earlier, there was a conflict between Hindus and Christians regarding the cultivation of the jointly owned land and there was also a dispute over the bajri grown by the Christians. On the first follow-up visit the participants told us that, due to pressure of work in their fields, nothing had been done as yet about the settlement of the dispute. On our second visit, however, they all were free enough to make an attempt and our team saw the two parties separately. It was our impression that both of them could now come together on the basis of the solution arrived at during the course. A joint meeting of the two parties was then called and though the elders were rather reluctant at first and needed coaxing, they finally agreed to come.

The meeting opened with violent accusations by both parties, the Hindus accusing the Christians of breaking their traditions and conventions and the Christians accusing the elders of obstructionism. When sufficient steam had been let off we intervened to restore peace and order, and asked the elders to tell us their grievances and what exactly they expected from the Christians.

"They have cultivated that land without our permission, thereby breaking an age-old convention," they said.

"What do you expect from the Christians now?"

"Oh, well, since the plot they cultivated belonged to all of us, they have to give us half of the crop."

We then turned to the Christians who were already making violent attempts to argue their case.

"Please, be calm. All we want to know from you is this: Are you ready to give to the rest of the community half of your bajri crop?" "Yes." They had agreed to this both at

the end of the course and again today when we saw them before the meeting. We then turned to the elders:

"Does this meet your demands?"

"Yes, it does," was their reply.

We turned to the other group:

"What are *your* demands?"

"We want to cultivate our land. Why should it be given to a third party?"

"Well, that is the way it has been done so far. Besides, the land will not be properly cultivated by the new association you propose to set up," was the rather apologetic answer of the elders. To keep tempers down we said, "The elders seem to doubt your capacity to cultivate the land. Can you show them that you can do it to the advantage of your whole community?"

"Of course, we can! See this year! We have earned relatively more from our piece of land than from the rest which was given to a third party."

This the elders accepted. At this moment we asked mildly:

"Don't you think that it would be worthwhile to give this new association a trial?"

The elders agreed. The other party was now jubilant and in their joy promised that if the whole community tilled the land their income would increase from Rs. 30 to Rs. 1000. "Furthermore", they said, "this will bring unity to the community. We shall indeed retain our separate religious associations, but for social and economic matters we shall have only one which will be in charge of cultivating the land."

The meeting had lasted three hours. Before calling it a day we again made the Christians promise solemnly that they would give the rest of their community half of the bajri crop. The elders, in their turn, gave the new association permission to cultivate the land.

As they pooled their resources together the Vankars decided to cultivate jointly not only the disputed piece of land but also another plot, an old river-bed, which was theirs. This plot was being used by the village shepherds for

cattle grazing since nobody was tilling it. When the shepherds saw that this land which they had come to consider theirs was being tilled by the Vankars, they became violent. The sequence of events described here may sound ludicrous to a sophisticated city dweller, but it speaks volumes for the values still prevalent in the villages.

It was the second day that Vankars were cultivating their fields. There were sixty Vankars when six shepherds approached them. They objected, argued and soon the argument developed into a fight. The six shepherds charged into the sixty Vankars confidently. But this time the shepherds met their Waterloo at Chaudbad. The sixty Vankars formed two ranks—the first raising their spades to protect themselves from the blows of the shepherds while those in the second rank waited for the staffs to fall on the spades and then catch hold of them. They managed to snatch one—a loss of face which the shepherds could ill afford and so they charged with renewed fury. But in this second attack they lost another staff. That was too great a loss of face and they withdrew. The first battle was over, but not the war. Other forms of harassment were now utilised to break the will of the Vankars. The Sarpanch of the village tried to intervene and asked the Vankars to give back the staffs to the shepherds. They were ready to do so provided the Sarpanch guaranteed them the peaceful possession of their land. Since this guarantee was not forthcoming, the Vankars now went to the taluka town to see the Mamlatdar. Fortunately for them he himself belonged to the Vankar community. He told them: "Tomorrow the Collector is coming. Wait here and make an official complaint." When the Collector went personally to Chaudbad to examine the records, the Vankars were in for a surprise. Although they had paid for the land five years ago the deed through no fault of theirs had not yet been finalised. The Collector decided to expedite the matter and finalize the deed of ownership.

In their efforts to unite themselves and to improve their economic situation the Vankars had unwillingly brought the twentieth century to Chaudbad. For one thing, the principle

of secularism was now accepted by both parties: the Hindus continued with their Ram Pir Mandal, the Christians with their Khristi Mandal and a common Mandal was set up to deal with economic and social matters. Then by appealing to the State in their conflict, they had made big inroads into the village autonomy, contributing unknowingly to that operation which political scientists call "state-building". But this encroachment by the State was resented by the dominant caste which tried again to bring pressure on the Vankars to withdraw the case (There was a criminal case pending against the shepherds for their attack on the Vankars) and to settle things amicably. The Vankars agreed on condition that the Rajputs assured them peaceful possession of the land. The Rajputs were now on the horns of a dilemma. If they agreed, they would be siding with the Scheduled Castes against the Caste groups. If they did not, they would concede to the government their preponderant position in the village. The former alternative appeared acceptable and they agreed to guarantee the Vankars peaceful possession of their land. The Vankars then returned the staffs to the shepherds and peace was restored to the village.

When we reflected over these events we could not but admire the wisdom of the villagers. All of them as a united group had safeguarded their common interests, surely a new and healthy development. Our participants had always before been on the losing end but once their main problem of the lack of unity among themselves was solved, they acquired bargaining leverage. They accomplished this purpose in *their* own way and it was very wise. Had we been in that field when six shepherds attacked 60 Vankars we could have been hardly able to resist the temptation to lead our former participants in a powerful counterattack. We would have won the battle but lost the war. The other communities would have had a wonderful opportunity to prove that the Vankars were all that they had been saying about them. This would have led to a closing of ranks of all the communities in the village against the Vankars who would then have to suffer endless harassment.

By simply resisting the attack and winning only a token

victory—snatching the staffs—nobody could raise a finger against them. On the other hand they could accuse the shepherds. By calling in the government and, later, withdrawing the case when justice was meted out to the shepherds, the Vankars proved that they were not quarrelsome. All they wanted was justice.

While the Rajputs were discussing whether or not to accept the condition laid down by the Vankars, a leading Rajput is reported to have said: "We better give it to them. The Vankars are no longer what they used to be." The social structures are still the same at Chaudbad. But by improving the community life of the Vankars, they had also managed to change the image the other communities had of them, thus making possible a new and juster relationship. And all this without violence. The more secure, hopeful and at peace a community is, the less is its need for violence.

Our enthusiasm for Chaudbad should not make us forget the other courses. The second course was given to Patels from two small villages—Pandarbad and Solbad. Pandarbad had some difficulty in sending participants to the course because of a fight going on in the village between Patels and Thakores. "In these circumstances, how can we remain here?" they pleaded with us. "Can't you organise the course at a later date?"

The Solbad participants would have none of this. Their objections soon became accusations ending with an ultimatum: "Either we have the course right away or we shall not have it at all." A compromise was worked out that Pandarbad would send two of their number back to the village to consult with their people at home.

Soon the two delegates were back with the Sarpanch himself who brought along two more participants to ensure that his village had equal representation with Solbad. He then called the Pandarbad group and harangued them to uphold the honour of the village. "What do you think we are in the village? Do you think we cannot take care of ourselves? We are not chicken stuff, do you know? You must remain here and do your lessons properly to preserve the honour of the village. If anyone of you comes back to the village before the course is over, I shall personally take

care of him. Do you understand?" Apparently they did, because from this moment onwards not one of them did so much as mention the idea of returning to the village.

However, the fight between the two communities continued to vitiate the atmosphere at Pandarbad. The drama reached its climax some months later when the Patels murdered the leader of the other community. In a subsequent follow-up visit we found that four of our alumni had left the village, one was in jail (17 people had been imprisoned) and the rest were not in the proper frame of mind to do innovative work in their fields. Their economic performance, all the same, was not worse than that of Solbad. (See Table 7.10)

Looking back at this camp it is clear that little learning could take place under pressure, either ours or the Sarpanch's. At that moment what the Pandarbad participants needed most was to work out their main problem which was the conflict with the other caste. This, of course, could not be done since we had to take care of the other group also. To conduct courses for two villages, even if they be small and near to each other, is an idea which needs reconsideration. Five times we had courses of this kind but on previous occasions the number of participants from the second village never exceeded five. Our main attention was given to the majority participants from one village. The smaller village did not usually raise specific concerns which could not be tackled in common. This was not the case with Pandarbad however. They had a very specific problem which they would never dare to speak about in the presence of the participants from Solbad village. We therefore did not tackle it, though in our defence we could say that at the time we did not think it was so serious but merely an instance of routine intercaste rivalry transferred to the political arena. Undoubtedly if the course had been given to Pandarbad only, the participants would have certainly spoken more clearly about their problem. Possibly we would have been able to help them find more creative and constructive ways of resolving a conflict than resorting to murder.

Solbad had none of these difficulties. Still the impact of the course was not sufficiently deep. There were only 12

participants. If allowances are made for those who were either too young or too old, the number of those who could really influence the village was too small to be really effective. This, again, was another reason to discontinue the practice of giving a course to two villages at the same time.

The third course has been described at length in Chapter 5. In our second visit, our former pessimism about the outcome of this course gave way to hope. With help from their Rajkot friends, Satarbad began to use the spinning wheels which had been lying idle for a long time. The monsoon had helped to wash the salinity of their fields and given them hopes of a good harvest of wheat. Our evaluation made us realise that, although a few had increased their income, they had done it in a significant manner in about six months. As this group's economic situation improves still further, it may very well be that the others will realise the importance of training. That will be the time to start having a refresher course as part of our follow-up work.

The last course was held in December as we were conducting our evaluation work. This course was for Scheduled Castes of Dashgam, the same village in which we had conducted previously an inter-caste course. A Social Service Society had formed a Kharland cooperative at Dashgam to buy at a government auction 600 square miles of land reclaimed from the sea. The soil, according to the experts, was very good, except for its salinity which could be removed. The conditions on which this land was bought were that as long as the land needed improvement and as long as the loan utilised to buy the land was not repaid, it would be cultivated on a cooperative basis. When the loan was repaid it would become the exclusive property of the cooperative members. The difficulty was to tide over this period of relative infertility of the land.

As work started on the Kharland the managers of the society complained that the members did not show enough interest in the work of the Kharland cooperative. The participants on the other hand, looked on the whole project as a burden because they had to work without any immediate financial gain. The fact that at a later date this land would

be theirs was not enough to motivate them. Their present economic needs were far too pressing to be relieved by future promises.

At a joint meeting with the representatives of the Social Service Society which carried the financial liability of the whole project, a satisfactory arrangement was reached. The Society's representatives decided to bear all the cultivation costs for five years. As for the profit from the fields, during the first two years the gross profit would go half to the members (according to the work they put in) and half to the society to meet actual expenditure and, if possible, repay the loan. After the first two years, when the land would hopefully be more fertile, two-thirds of the gross profit would go to the society and one third to the members of the cooperative. After the fifth year, all the cultivation expenditure would have to be paid first and the net profit divided equally between the society and the members of the cooperative.

In this, as in other courses, we insisted very much on self-respect and unity. We would call the group to task whenever they ridiculed the others and we even made them solemnly promise to respect each other. This soon created a climate of trust and well-being which brought in its train much enthusiasm and readiness to learn.

In our Research Farm the participants were in for a big shock. The Director told them point blank that they had too much land and that, given their poor economic situation, they could not cultivate it at a profit. "Don't cultivate so much land. Take little and do intensive cultivation. Let the rest remain fallow." This simple advice became the topic of our dialogue for a whole day. The group saw the reason behind it but it drew a different conclusion. "What we must do," they said, "is to cultivate the land on a cooperative basis. It will be difficult to do it with our private plots but we can certainly do it in the Kharland." By the end of the course even those who had insisted on being given individual plots in the Kharland for their cultivation now wanted to join the cooperative venture with the Social Service Society. It is very early still to know whether they have persevered in their resolve. But as one of them said, "If we do, we shall soon come back to see you in a motor car!"

Towards an Evaluation

A project has to be evaluated by ascertaining whether its goals have been achieved. The goals of the project and the methods used to achieve them have been explained in a previous chapter. For the sake of clarity and at the risk of over-simplification these aims and methods could perhaps be synthesised in two propositions. First, non-formal education leads to personal growth. Second, personal growth leads to rural development.

An evaluation of our work would have to test these propositions. To test the *first* proposition the behavioural sciences offer certain tools. Fundamentally, what we have to do is to test our assumptions at every stage of our training process. First, do the participants have the characteristics that we attribute to them when they join our training courses? Second, do our training courses effect the behavioural changes they are supposed to bring about? Third, are these behavioural changes—if they take place at all—of a lasting nature?

To test the *second* proposition one must, first of all, spell out the meaning of rural development. It means the creation of those conditions which are conducive to personal growth. The behavioural sciences can, partly at least, evaluate rural development thus understood. On the other hand, when rural development takes place in the economic field, its evaluation is done by economists.

In this project, economic development has to be measured as a function of personal growth. In other words, our hypothesis states that there is a causal relationship between non-formal education and economic progress. To test this hypothesis an econometric model would have to be prepared whose aim would be the production of quantitative economic statements which would study the relationship between two variables: our non-formal educational inputs and their economic performance. This economic performance can be measured by various indicators such as increase in income, adoption of improved agricultural technology, increase in the productivity of land, increase in the marketed surplus of agricultural produce and changes leading to organisational development (like the setting up of a cooperative or reactivating an existing one).

To prepare this econometric model is not an easy task. Over and above the analysis of the structural parameters (or the whole complex of features that do not change) the model will have to take into consideration the variables. In any econometric problem (other than the random disturbances) these variables may be what economists call “endogenous” and “exogenous”. Endogenous variables are those values or levels which are required to be explained or predicted. The values of these variables are simultaneously determined inside the system and statistical inference methods can be applied to test the hypothesis. In our case these endogenous variables are determined by our own hypothesis. One type of variables will be the educational inputs given by us and the other type of variables will be the economic performance of our trainees as observed through the economic indicators mentioned above. According to our hypothesis, there is a causal relationship between the two.

In order to ascertain the causal relationship of these endogenous variables, one must establish or determine the value of the other variables within the economic structure obtaining in the village where we work. To do this the model will have to lay down certain propositions which will have to be translated into a mathematical form. After this specification of the model in mathematical form, relevant

and appropriate data must be assembled to estimate the parameters of the model and carry out tests to observe whether there is a real causal relationship between our educational inputs and the economic performance of the trainees.

This aspect of evaluation is especially interesting since it would make a contribution to the behavioural sciences. However, we have done little as yet in this line, as our concern has been almost exclusively with education rather than research. When this project was started three years ago, we were too worried about its feasibility to think about anything else. More mundane cares than research exercised our minds: the problem of recruitment, how to persuade the farmers to come to our college for a ten-day course; our own teaching methods and how best to conduct the courses; and even our own competence. Later on, the follow-up work took much of our time and attention. Again, our own ideas about rural development and non-formal education were evolving as we experienced both success and failure and as we studied the underlying reasons. Reflection on our own experience in the light of what experts on rural development had written took away the little free time that our educational activities left us.

Still, an evaluation had to be done. And as we set ourselves to plan for it, we did not do it reluctantly, although we were aware of our limitations as regards time and research facilities. Our willingness to prepare an evaluation sprang from our desire to achieve professional competence. This desire had already prompted us to study our own performance by having our sessions taped and then replayed. This gave us an opportunity to study our own interventions and training method. Other methods were also to get quick feed-back on our performance. But, in the end, there always remains a doubt: has our training been effective? There are groups which click together beautifully, go along smoothly and depart tearfully. It is a pleasure to run a training course for such people. But has the course really meant much to them? Has it effected any behavioural changes? Or, are they like the tree in the valley which bends down to every wind, ever to come back to the same

position? Even if this may not be true, can we know to what degree they have been affected by the course and how they compare with other groups?

From what has been said above, it will be clear that at present we are in no position to conduct a rigorously scientific evaluation to test our hypothesis. We plan to do this later on. For the present our evaluation has focused on the question of effectiveness of the investment in this project. The obvious way of answering this question would be to set up a formal cost-benefit model. The advantage of this method is that it makes a serious attempt to quantify the increase in welfare accruing not to one individual alone but to the whole community. The application of this idea to our project may look ambitious but it expresses concisely the final aim of our courses: to train a mini-community which would influence the village community and its neighbouring communities as well. Cost-benefit techniques have already been applied to evaluate formal educational programmes, even though the attempts may not have been very successful.

An evaluation of this type would require among other things: (a) a clear statement of our project: the number of people trained, the number of villages affected, and the life-time of the project, i.e. the approximate duration of both streams of costs and benefits; (b) a detailed specification of costs and benefits. This specification must take into consideration what economists call the primary and secondary streams of benefits and costs or what we might call direct and indirect benefits. An example of a direct benefit would be the increase in income; an indirect benefit would be the subsequent increase in the demand of, say, consumer goods; (c) the calculation of the appropriate set of what economists call "shadow prices", or in our language, the prices that should exist in normal circumstances; (d) the use of an appropriate discount rate and the choice of a method to evaluate costs and benefits; (e) the measurement of risk and uncertainty that accompanies many of the elements analysed in any project. This is usually one of the most difficult tasks, since this element of risk and uncertainty is difficult to quantify.

Because of the research limitations mentioned earlier, we

have been able to prepare only a rough and approximate exercise in cost-benefit analysis, our efforts resembling more those of an accountant than an economist. But we take courage from Mishan's (1973 : 12) view that "the economist engaged in the cost-benefit appraisal of the project is not, in essence then, asking a different sort of question from that being asked by the accountant of a private firm. Rather, the same sort of question is being asked about a wider group of people—who comprise society—and is being asked more searchingly."

Table 7.1 Participants who answered the questionnaire by village

S.No.	Date	No of participants: attended, left, completed course			No of participants interviewed/should have been interviewed %			Village*
1.	Feb 1973	23	0	23	19 ^a	21	90.5	Ekpur
		3	1	2	1	2	50	Dwipur
2.	Mar 1973	24	0	24	18 ^b	22	81.8	Tripur
		5	0	5	4	5	80	Charpur
3.	Apr 1973	21	0	21	18 ^c	20	90	Panchpur
4.	May 1973	22	5	17	11 ^d	16	68.7	Chhapur
		2	0	2	2	2	100	Satpur
5.	Mar 1974	17	17	0	0 ^e	—	—	Athgam
6.	Apr 1974	25	0	25	25	25	100	Navgam
7.	May 1974	15	0	15	12 ^f	12	100	Dashgam
		4	0	4	3	4	75	Giargam
8.	May 1974	10	10	0	0 ^g	—	—	Bargam
9.		24	0	24	0 ^h	—	—	Bhal area
10.	Jan 1975	29	0	29	28	29	86.5	Chaudbad
11.	Feb 1975	12	0	12	8 ⁱ	9	88.9	Pandarbad
		12	0	12	11	12	91.7	Solbad
12.	Mar 1975	23	0	23	20 ^j	22	90.9	Satarbad
13.	Dec 1975	37	0	37	0 ^k	—	—	Dashgam-Kharland
Total		308	33	275	180	201	89.55	

*Pseudonyms used.

^aTwo had died. ^bTwo had left the village. ^cOne had left the village. ^dOne had left the Village. ^eNo evaluation was done in this village since the course ended in failure. ^fThose not interviewed include three young-men who were still studying in college. ^gNo evaluation was done since the course was prematurely terminated and the participants did not set goals for themselves. ^hThis course included participants from many villages and, as such did not fall fully under our scope. ⁱThose not interviewed include one who was in jail and two who had left the village. ^jOne could not be interviewed because he is still under bonded labour. ^kNo evaluation has been done so far.

In presenting this tentative evaluation we shall follow the sequence shown below:

(a) Explanation of our method of data collection and the problems involved; (b) A statement of the problem (number of villages and people trained; time involved); (c) The problem of prices; (d) Specification of costs and benefits; (e) Reflections on other related questions.

Data collection. One of the ways of checking the efficacy of our training would have been to designate control villages to compare their economic performance with that of the participants. Since we were unable to do this, the enquiries were limited to our former trainees. It is true that other sources have also been used, especially the records of cooperatives set up as a result of these courses. Though some visits were also made to their fields to check their efforts at land improvement and to see their compost pits, the main source of information was the trainees.

Collecting information from them was a relatively easy task. After a ten-day course, a new relationship is usually established which, characterised by great warmth and mutual acceptance, leads to mutual openness and cooperation. They received us with unaffected joy and told us the truth spontaneously. It was therefore very easy for us to gather information from them and that is why we insisted on collecting the information ourselves, although it meant a lot of work for us. Table 7.1 shows the results of our efforts. Although 275 completed the course, not all of them fall under the present scheme which is concerned with training a community which is a replica of the village community. This criterion excludes all those who left their village for good, 13 of them; it also excludes the Bhal area course, since it was given to people coming from many villages. Finally, there was no point in evaluating the last course since it had then just concluded. The main aim of our inquiry was to know whether the participants had done better in their fields as a result of our training. Implicit in their answers was always a comparison between their performance in 1975 and that of previous years.

This raises several questions. How can we be sure that the

increase shown is not due to an exceptionally good monsoon? For those interested in knowing the general situation of the fields in our villages, Table 7.2 gives a general picture of the quality of the harvests for the winter crop of 1974-75 and the monsoon crop of 1975, which come under the purview of our evaluation.

Table 7.2 Quality of crops during the Winter 1974-75 and the Monsoon of 1975

Village*	Crop	Quality	Remarks
Ekpur/Dwipur	Winter	Failed	Drought
	Monsoon	Good	
Tripur	Winter	Good	Subsoil water available.
	Monsoon	Good	However, there were many diseases.
Panchpur	Winter	Poor	Groundnut failed, cotton
	Monsoon	Poor	seed plots failed.
Chhapur	Winter	Poor	
	Monsoon	Poor	
Navgam	Winter	Good	
	Monsoon	Very poor	Monsoon crop failed due to excessive rain
Dashgam/	Winter	Very poor	Severe drought
Giargam	Monsoon	Good	Very good paddy crop
Chaudbad	Winter	Poor	Drought
Pandarbad/	Winter	Poor	Drought
Solbad	Monsoon	Good	
Satarbad	Winter	Very poor	Severe drought

*Pseudonyms used.

Although these details are of interest, one fact must be stressed: in the interviews we insisted on their telling us only the increases due to the training received. Any farmer knows only too well that the quality and quantity of a harvest depends on how good the season is. Actually, they have their picturesque 16-point scale to measure it: a bumper harvest is said to be a sixteen-anna crop.

Therefore, when we asked our participants how much their crops had increased as a result of our course, they could give us a fairly accurate answer; they could more or less effectively isolate other seasonal factors which affected all the farmers in the same area.

The second question is, can we really believe what our participants tell us? Is it not possible that they may be inflating the figures to please us? This is certainly a possibility. So we insisted on their telling us the truth. The relationship we established with them made us hopeful that when we asked them to be sincere they would be. Those who had shown no increase, and they were not a few, were not embarrassed to admit the fact, as can be seen in Table 7.9. But in addition to this, a certain amount of checking was done in the fields on previous visits to the villages to gauge more accurately the extent of their progress.

Finally, there was another way of verifying their truthfulness by checking on what we might call the internal consistency of their answers. This was done by comparing the improvements mentioned by them with the inputs given by us in the course. If there was agreement between the two we had further proof that they were telling the truth. Thus, for example, the improvement shown oftener in Ekpur/Dwipur is the introduction of *til* oil-seeds. This was the subject of a long discussion between them and the agricultural expert; they kept on insisting it would not grow and he, pleading with them just to try it. Another improvement mentioned is in the production of rice. The Director of Xavier Farm always challenges our rice-growing trainees to double their production by following the proper method of cultivation. We could go over each of the improvements in this manner. These examples will suffice to show what we mean by the internal consistency of the answers given. It should be mentioned that each participant is interviewed separately. To achieve this one member of the team entertains the crowd while the other draws apart the person to be interviewed.

Statement of the problem. There were 214 farmers belonging to 14 different villages to whom a ten-day course was given. The question was to study on the one hand the costs incurred during the training and, on the other hand, the benefits which accrued to the trainees and, through them, to the villages concerned. Table 7.3 gives in summary form data on the villages and trainees involved.

Table 7.3 Villages and trainees involved in the project

Sr. No.	Village*	Date of course	No. of Participants	Number interviewed
1.	Ekpur	Feb 1973	23	19
	Dwipur	Feb 1973	2	1
2.	Tripur	March 1973	24	18
	Charpur	March 1973	5	4
3.	Panchpur	April-May 1973	21	18
4.	Chhapur	May 1973	17	11
	Satpur	May 1973	2	2
5.	Navgam	April 1974	25	25
6.	Dashgam	April-May 1974	15	12
	Giargam	April-May 1974	4	3
7.	Chaudbad	Jan 1975	29	28
8.	Pandarbad	Feb 1975	12	8
	Solbad	Feb 1975	12	11
9.	Satarbad	March 1975	23	20
	Total		214	180

*Pseudonyms used.

In making this study, we have calculated the benefits received during one year only, i.e. 1975, but no attempt is made to estimate the benefits received during 1973 and 1974 by the villages that had the earlier courses. This implies that we are not concerned with the problem of calculating the future benefits and the question of calculating the discount rate to be applied, and of determining how long the effect of our training lasts. By not estimating the benefits for the year 1973 and 1974 the total amount of benefits resulting from our programme will naturally decrease and by not calculating the discount rate the stream of costs will increase. These limitations have to be borne in mind.

The problem of prices. In determining the costs and benefits of the programme there has first to be an agreement on a method of fixing the prices which vary considerably not only between city and village markets but also between one village and another. The standard procedure, as mentioned earlier, would be to determine the so-called shadow prices or the real competitive prices that should prevail in the market; but we have not been able to do so. This would have helped us to avoid the wide discrepancy in prices of certain commodities. Thus, for example, a cart

Table 7.4 Improvements Introduced

Course	Improved method of cultivation	Increased use of fertilisers and insecticides	Use of H Y V	New crops	Compost pits	Increase in livestock	Increase in crops	Levelling of land and bunding	Increase in income
1. Ekpur/Dwipur	10	7 (Rs. 1,600)	7	16	0	3	8 (1,015 mds.)	0	14
2. Tripur & Charpur	17	18 (Rs. 45,900)	12	10	0	3	17 (4,100 mds.)	0	18
3. Panchpur	7	10 (Rs. 54,50)	4	10	0	10	4 (110 mds.)	0	13
4. Chhapur & Satpur	6	7 (Rs. 1,150)	8	8	0	3	6 (460 mds.)	1	7
5. Aathgam									
6. Navgam	16		19	17	20 (1836 sq. ft)	2	17 (270 mds.)	25	17
7. Dashgam & Giargam	13	6	9	8	3 (908 sq. ft)	2	13 (930 mds.)	6	13
8. Chaudbad	14	0	10	13	13 (4983 sq. ft)	9	28 (718 mds.)	11	28
9. Pandarbad & Solbad	10	8 (Rs. 1,550)	11	12	4 (506 sq. ft)	1	7 (700 mds.)	5	9
10. Satarbad	7	1 (Rs. 100)	4	3	2 (260 sq. ft)	0	5 (330 mds.)	13	6
Total	100	57	84	97	42	33	105	61	125

All figures, unless otherwise specified, indicate the number of participants who have introduced improvements.

Table 7.5 Additional Costs due to Improvements (in Rupees)

Course	Labour	Tools Tractor bought	Tractor utilised	Irrigation	Manure	Fertiliser	H.V.V.	Cattle	Total cost	Gross income	Net increased income
1. Ekpur-Dwipur	200	—	—	—	1,045	1,600	240	600	3,685	51,555	47,870
2. Tripur-Chhapur	700	5,000	550	6,020	870	47,850	1,550	600	63,140	2,15,800	1,52,660
3. Panchpur	300	—	—	900	150	5,450	1,300	3,700	11,800	95,500	83,700
4. Chhapur-Satpur	500	—	—	850	75	1,150	500	290	3,365	12,200	8,835
5. Aathgam	—	—	—	—	—	—	—	—	—	—	—
6. Navgam	1,850	—	—	—	148	250	300	160	2,708	10,030	7,322
7. Dashgam-Giargam	1,200	—	150	—	1,335	1,050	350	200	4,285	29,140	24,855
8. Chaudbad	1,775	—	750	—	715	—	330	1,150	4,720	25,581	20,861
9. Pandarbad-Solbad	850	—	800	—	75	1,550	450	100	3,825	21,505	17,680
10. Satarbad	650	—	—	—	440	100	—	—	1,190	8,320	7,130
Total	8,025	5,000	2,250	7,770	4,853	59,000	5,020	6,800	98,718	4,69,631	3,70,913

of manure which costs only Rs. 4 in Navgam is Rs. 16 at Tripur. Given these constraints we adopted this policy: all costs have been calculated according to the prices current in November 1975 in the village itself. There has been no need to standardise prices to control for inflation, because the farmers never calculate their crops in terms of rupees but in terms of maunds. And the conversion of maunds in rupees has been done according to the prices prevailing in November 1975.

Specification of costs and benefits. Table 7.4 gives an idea of the improvements introduced by the former trainees in their fields. A summary of each trainee's improvements is given in the Appendix. From these figures both the benefits received and the extra costs incurred as a result of our training are calculated as shown in table 7.5. The calculation of benefits is based only on columns 5 and 7 of Table 7.4. Benefits with a longer period of gestation like those of levelling and bunding have not been calculated, since they will come to fruition

Table 7.6 Cost of each course and net benefit to the participants (in Rupees)

Course	Village	Centre's expenditure	Participants' expenditure	Total Expenditure	Net additional income
1st	Ekpur Dwipur	14,799.15	325.00	15,124.15	47,870.00
2nd	Tripur Chhapur	14,832.95	377.00	15,209.95	1,39,440.00
3rd	Panchpur	14,412.65	460.00	14,872.65	83,700.00
4th	Chhapur Satpur	17,516.70	556.00 540.00	18,612.70	8,835.00
6th	Navgam	15,158.47	1,050.00 600.00	16,808.47	7,322.00
7th	Dashgam Giargam	12,545.80	300.00	12,845.80	24,855.00
10th	Chaudbad	13,385.83	638.00 870.00	14,893.83	20,861.00
11th	Pandarbad Solbad	11,985.30	312.00	12,297.30	17,680.00
12th	Satarbad	12,464.15	575.00 690.00	13,729.15	7,130.00
Total		1,27,101.00	7,293.00	1,34,394.00	3,57,693.00

later. This again reduces the stream of benefits. If we now compare the costs incurred in the courses and the additional net income of the trainees (Table 7.6) we have a ratio of 1:2.66. In three of the villages the ratio is negative. It is mainly due to the richer villages that this ratio has changed sign. We shall have more to say about these inequalities.

Our assumption was that through our participants the village as a whole would benefit. These benefits are mentioned separately because they are based on second-hand information and, to that extent, the figures are less reliable. We also estimate the benefits accruing from schemes which have been started as a result of our courses, but for these we have not made a cost-benefit analysis. In the case of cooperatives, the turn-over is given as an indication of the progress made by them in such a short time. Similarly, in other schemes an estimate is given of the additional income without calculating the costs.

Table 7.7 Other benefits (in Rupees)

Course	Village	Net additional income to others	New schemes	Total
1st	Ekpur/Dwipur	37,100.00	10,000.00 ^a	
			80,000.00 ^b	1,27,100.00
2nd	Tripur/Charpur	4,16,662.00	5,62,561.69 ^c	9,79,223.69
3rd	Panchpur	8,765.00	4,17,713.63 ^d	4,26,478.63
4th	Chhapur/Satpur	7,242.00		7,242.00
6th	Navgam		2,720.00 ^e	2,720.00
7th	Dashgam/Giargam	3,412.00		3,412.00
10th	Chaudbad	11,564.00		11,564.00
11th	Pandarbad/ Solbad			
12th	Satarbad	572.00		572.00
	Total	4,85,317.00	10,72,995.32	15,58,312.32

^aAdditional income from better prices of milk, as a result of collective bargaining.

^bAdditional income from the introduction of a new variety of *til* seeds.

^cTurn-over of a multi-purpose cooperative decided upon during the course.

^dTurn-over of a Milk Producers' Cooperative Society planned during the course.

^eAdditional income from the introduction of compost pits in the village.

Disparities. We have so far attempted only a tentative analysis of the costs and benefits of our courses. In the process of this analysis several other points of great interest have come to our attention, such as the great disparity in benefits between village and village. As among nations so too in our villages, "to those who have, more will be given." The phenomenal increase in the Tripur and Panchpur villages shown in Table 7.7 has to be seen in the context of the data in Table 7.8. The *average* income of our participants in Tripur before our courses was Rs. 13,900 and that of Panchpur Rs. 17,680. In other words there were several people with sufficient economic means to start ventures in a big way. Panchpur set up a big Milk Producers' Cooperative, borrowed a lot of money to buy buffaloes and within two years it was selling milk worth about Rs. two lakhs. The inputs given in our course were simple. We discussed with our group and the expert from the Sabar Dairy the feasibility of such a venture; we also discussed with an expert in rural credit the availability of loans. As explained in previous chapters this is done when the participants have already been sufficiently enthused and are ready to take risks.

The case of Tripur was different. It was an example of how Organisational Development techniques could work in a rural setting. The most gifted participants in this course were highly sophisticated. There was a lot of one-upmanship among them, a lot of mutual suspicion and lack of trust. Privately they were convinced that if they united they could easily set up a cooperative which would benefit everybody in the village. Most of them felt that this work could be best done by Raghavji, a well-educated, much travelled and intelligent middle-aged man. When asked to do the work he would smile and excuse himself politely. While this one-upmanship game was going on in the councils of our nine elders, there was little chance for any other learning to take place. What is worse, they were standing in the way of the rest who wanted to learn.

We decided to separate the groups and take the nine elders for a real *T-group*. In the first session, all the trainers did was to show the nine elders how they were (the elders)

saying one thing and actually meaning another. The first two times this feedback was bluntly denied by them. The trainers did not argue and did not even repeat what they had said—they just kept silent after their denial. The third time the same feedback was given to them, no attempt was made to deny it. They just exchanged glances among themselves. In a later session we wrote a summary of the previous sessions and the way we perceived their behaviour. This was received in stunned silence. As we left the hall we overheard one of the leading members exclaim: "We thought we were very clever! May be we are not so clever after all!"

These were pressure tactics, no doubt. But we did not want to keep on playing games. In making this decision we were a little apprehensive, since this was the first time we were using *T-group* techniques with rural people. Our courage paid rich dividends. The nine elders abandoned the one-upmanship game, Raghavji accepted to become the first secretary of the multipurpose cooperative, the others promised to support him unconditionally, and soon Tripur had an efficient cooperative. Table 7.12 gives an idea of the significance of this decision for the village. It was not only the cooperative's turnover of Rs. four lakhs; more important than this was how much this cooperative had helped to increase the income of the rest of the people. According to our calculations it amounted to Rs. four lakhs, due especially to the ready availability of pesticides, fertilisers and improved seeds. It is evident that no single individual in a village can keep a ready stock even of pesticides. When a particular disease strikes, a stitch in time may save the whole crop. To us, agricultural laymen, it is difficult to believe that so much saving can be effected with a timely spray of pesticides.

Tripur and Panchpur were examples of how much could be achieved by proper training and a sound economic position. But these villages had had more than two years to work out all these improvements. We expect a repeat performance in Chaudbad, Dashgam-Kharland and, may be, Satarbad too, even if their previous income was around Rs. 1000. But this would be part of a future evaluation.

Relative performance. If absolute figures stress the fact of inequality the relative increase provides a corrective view of the situation. Table 7.8 shows quite a different picture from that emerging from Table 7.7. Of the three villages having a negative cost-benefit ratio, two in Table 7.8 show a very good rate of increase. When we started this project, we had heard so much about the difficulty of raising the standards of the poor that we were reluctant to train the weaker sections of society. Later, as we mustered enough confidence to organise courses for them, we assumed that the poorer castes would increase their income by about half the rate of the richer ones. The results shown in Table 7.8 not only

Table 7.8 Relative average increase of our Participants
(in Rupees)

Course	Village	Main caste	Previous income average (gross)	Additional income average increase (net)	Increase %
1st	Ekpur	Patel	7,812	2,394	30.64
	Dwipur				
2nd	Tripur	Patel	13,900	6,929	49.8
	Charpur				
3rd	Panchpur	Patel			
		Rajput	17,683	4,650	26.3
		Barot			
4th	Chhapur	Thakore	3,130	680	21.7
6th	Navgam	Tribals	520	293	56.3
7th	Dashgam	Rajput			
	Giargam	Scheduled Castes	4,763	1,657	34.79
10th	Chaudbad	Scheduled Castes	1,180	745	63.13
11th	Pandarbad				
	Solbad	Patel	9,000	1,931	21.45
12th	Satarbad	Scheduled Castes	672	357	53.13

confirm our faith in the poor but have by far exceeded our fondest hopes. For, indeed, the highest rate of increase is to be found among the Scheduled Castes and Adivasis—those who had the lowest income. These findings are not only a pleasant surprise to us but also of great significance in any strategy to improve the standard of living of the rural poor.

In Chapter 6 we had mentioned the difficulties we encountered in the course given to participants from Satarbad. As the three of us studied these tables, we had to acknowledge that the impression we carried away of this group was erroneous. We thought we had achieved very little but the reality, as it appears from Table 7.8, seems to be different. Barely six months after the course, six participants had already increased their income by 65 per cent. One of them actually had been keeping accounts in the special forms provided by us and proudly showed us the results. Our former impression nevertheless was not altogether mistaken. Table 7.9 shows that participants from Satarbad had increased their income by only 30 per cent while the average for all the courses was 64 per cent. In other words, 14 uninvolved participants could distort the significant performance of six people who were listening, thinking and planning for the future.

Table 7.9 also provided us with some negative feedback with respect to the performance of Charpur. In spite of the trouble the team took for this village (chapter 6), the increase was very disappointing. The three of us now think that we made a mistake in helping the Chhapur group to expect redemption from all their economic ills by a grant from government and not by their own personal efforts. In the process we fell prey to those games which that big cat, the government bureaucracy, plays with the poor, little mice! Satarbad, a village with much poorer land and less than average rain (it actually falls under the DPAP), did much better in a shorter span of time.

The 11th course stands out like a sore thumb. We have already given reasons in the previous chapters for having the courses for only one village at a time. Table 7.9 provides evidence to reinforce this strategy. We could excuse ourselves by mentioning that Pandarbad was in the throes of an intercaste fight, yet it had done better than Solbad. The real reason for this poor performance must be sought in the fact that the course was given to a very few participants (only 12) from each village. In any group one must always allow for some dead wood. The percentage of good people is

Table 7.9 Individual performance of our participants

Course	No.	Not increased	Increased	%	Net total Increase (Rs.)	Average* Increase (Rs.)	Village**
1st	20	6	14	70	47,870	3,419.29	Ekpur/Dwipur
2nd	22	4	18	82	1,52,440	8,468.89	Tripur/Charpur
3rd	18	5	13	72	83,700	6,438.46	Panchpur
4th	13	6	7	54	8,835	1,262.14	Chhapur/Satpur
	Grand Average			69.5	73,211	4,897.20	
6th	25	8	17	68	7,322	430.71	Navgam
7th	15	2	13	87	24,855	1,911.92	Dashgam/Giargam
	Grand Average			77.5	16,088.50	1,171.32	
10th	28	0	28	100	20,861	745.04	Chaudbad
11th	19	10	9	47	17,680	1,964.44	Pandarbad/Solbad
12th	20	14	6	30	7,130	1,188.33	Satarbad
	Grand Average			59	15,223.67	1,299.27	

*Taking into account only those who have registered an increase.

**Pseudonyms used.

always small and one requires bigger groups to have enough good people who can influence the others, and also to have sufficient leverage in the village. All this is, however, hindsight since our recollection of this course is full of positive memories. At that time, we would have rated this course very high. There was a great deal of involvement, eagerness to know about agriculture and even after the course some of them corresponded with the Director of Xavier Farm about their difficulties in agriculture. All this suggests the need for periodic evaluation at regular intervals.

Finally, it is clear that the earlier courses have been relatively less effective than the later ones. If we exclude Pandarbad and Solbad where the number of participants was not sufficiently large to bring about change, then the average is more than 58 per cent, while the average for the first years is only 31 per cent. This, we think is due to the importance we began giving to agricultural technology from the sixth course onwards. The earlier courses, on the other hand, proved very effective in resolving inter-personal conflicts and developing cooperative spirit. When we planned the courses our idea of success was that at least 30 per cent of the participants should show progress. This objective has been achieved and, in most cases, exceeded. The fact however still remains that not *all* the trainees profit from each course.

SUMMARY AND CONCLUSIONS

1. The first tentative cost benefit analysis shows that the benefits resulting from this programme exceed the costs by a ratio of more than two to one.

2. Our biggest success in absolute figures was our effort at organisational development with rich farmers. These efforts have led to the setting up of two very successful cooperatives. With poor farmers, too, we have been successful. By resolving a factional fight at Chaudbad, two jointly owned fields are now cultivated which before were either not cultivated at all or given for cultivation to a third party. Unfortunately, when we did our evaluation the final figures for the monsoon crop were not yet available, still the bajri crop alone has meant an additional income of Rs. 7,860.

3. With poor farmers, even though the absolute figures are discouraging, the relative rate of increase is very promising indeed.

4. We have definitely failed with smaller groups, as the Pandarbad-Solbad case shows. We have now decided to take up only one village at a time.

5. We have also failed with heterogeneous groups or groups composed of different castes.

6. Another instructive failure has been that of Chhapur where our efforts were mainly directed to securing government grants for our trainees, without insisting sufficiently on their own development.

To conclude, although our evaluation is based mainly on the economic performance of our trainees, this does not mean that we give priority to economic progress. Improved economic performance is but the outcome of a combination of other factors which are more important: personal growth, the development of inner faith and self-confidence, and the aim of all genuine education, creativity. Economic progress is important. But what is more important is that the progress reported in this study is the result of the trainees' own efforts, the result of better mutual understandings and of readiness to cooperate. All this is possible because this training generates more faith in oneself and, as a result, better performance—faith which leads to better efforts, more ingenuity, and greater creativity, faith and trust in others, leading to cooperation. And the result is achievement full of joy and satisfaction, because it is *theirs*, achievement which enhances their self-image and leads them to greater self-respect. It is this that makes our effort for rural development worthwhile.

Conclusion

The main theme of this study has been non-formal education in rural development. Since our work has been with farmers, education has meant teaching them agricultural technology among other things. Much research has been done on the diffusion of agricultural innovations in India. During the preparation and execution of our project we did not refer to these studies. But, as we present our experience to the general reader, it will not be out of place to relate our work to the existing literature on the subject.

There are two types of studies. The first type is general literature on the diffusion of innovations. This is closely related to other studies on planned change. The second type refers to the various studies on the acceptance of agricultural technology by the Indian farmer.

Books of both general nature and research studies analyse the various aspects to be taken into consideration to have people adopt innovations. Much stress is placed on the importance of culture and social structures (Rogers 1962: 57-59; Mookherjee 1976: 154-56). Of particular relevance to the work we have been carrying out are the studies presented by Spicer (1952) in a book which focuses its attention on the human problems in facing technological change. While drawing conclusions from the various cases, he writes:

- The cases of the introduction of the wagon, the axe, and hybrid corn illustrate the nature of human custom.

They show how customs are linked with one another, how a change in one may affect many others, or how one well-established custom may prevent or retard change in another. When the nature of customs and the fact of their linkage is grasped, one has a primary frame of reference for planning and directing a programme of change. This frame of reference is spoken of by social scientists as a concept of culture.

It is simply the understanding that all people everywhere behave in accordance with patterns which they have learned in the process of growing up in society and which make sense to them as an over-all design for living. Whatever a person brought up in one tradition may think or feel about the efficiency or sensibleness of another people's customs, to those who practise them, they have been held up as proper by parents and other respected persons from childhood. They are so because they have been learned slowly and sometimes painfully over the years.

In all societies the existing customs have meaning for the people in relation to one another. They have learned to practise them as a part of a pattern of living and the continuance of that way of life is in itself the source of feelings of security. A large part of the activity of each individual as he grows up has been devoted to achieving such a sense of security and well-being through behaving like others and through obtaining, their acceptance as a result. A change of apparently small magnitude in one aspect of the culture, may, therefore, seem to threaten the whole system, or at least require the learning of a new view-point toward a whole series of customs.

From the preceding analysis it becomes clear that learning a new technology is a difficult process because it often entails changes and these changes in their turn may threaten the whole social set-up.

One of the points that have been emphasised (chapter 2) is that the introduction of technology requires much creativity. And creativity, among other things, means how to

locate the new technology within the trainees' cultural universe. This creative process includes first the realisation that technology is rejected because it goes against their way of life and, second, the realisation that there is always a way out of accepting the new without rejecting the old altogether.

The importance of this "cultural universe" has led us to study each village community before imparting training to it. It has also led us to a great desire to know and understand our participants. Spicer (1952:288) also stresses the importance of the group. From one of the cases studied he comes to the conclusion that "people act as members of groups rather than merely as individuals pursuing merely individual gains." This is a truth often forgotten by the economists who see development as the improvement of the means of production, distribution, and consumption of wealth by transferring a considerable amount of money or goods to develop these sectors that are thought to be essential for economic development. This is also forgotten by the technocrats whose approach to development is just to disseminate technical know-how. Technical know-how and economic inputs have to be provided to men who live in groups. And a group means a social organisation or set of individuals "who are accustomed to act together for certain purposes and who abide by certain codes of behaviour, however unconscious of these codes they may be. The codes consist of rights and duties which the group expects its members to abide by and which are the basis of their cooperation." (Spicer, 1952:288).

The group for us is the community. Our educational approach is man-centred. But we always refer to the individual as man-in-the community. We do this not only because educational efficiency demands it, but also because of the advantages to the individual in terms of joy, security and general well-being. The difficulty in rural India is to decide what constitutes the community. Here we have made a decision which seems to be different from much of the official thinking. We have taken a caste or a cluster of homogeneous castes in the village as the community. One

can easily see how government and all its development agencies have shied away from using caste as a diffusion agency of agricultural technology. The fear of fostering casteism, the desire to stress modern values by ignoring what may appear as a relic of a traditional society and, perhaps most important of all, the administrative difficulties involved are sufficient reasons to deter the government from this approach. Ignoring caste, rather than fighting casteism, we are inclined to believe, has helped to perpetuate the caste system, since most development schemes have often been manipulated by the dominant castes to the detriment of the weaker classes. By making caste the social unit, development work becomes much easier, since the existing realities of the village are accepted. Education becomes much more realistic, since the training group is a true replica of the village community; and the adoption process is made easier since the "early adopters" are supported by their co-trainees.

As for the danger of casteism this method is likely to fight its evils more successfully. By educating the Backward Classes we help to restore the balance within the village which at present is heavily weighted in favour of the upper castes. By helping a caste to develop means helping it to modernise and, to that extent, to move away from the old evils of casteism.

The need of working with the group rather than with individuals has also been brought out by studies on the community as an adopting unit. In a study of six villages made by Dasgupta (1968) the effectiveness of the community structure was measured in terms of recognition of generalised leadership, number of developmental actions performed, and degree of positive consensus among villagers regarding the effectiveness of leadership and potential for community action. According to this study adoption of agricultural technology was higher when the community functioned better, except in one case where there was a large number of "adopters", a rather uncommon coincidence.

The findings of Dasgupta make sense. Our greatest successes have been when we have been able to strengthen

the community life of our participants, in some cases leading to cooperative ventures.

Interestingly enough, in one case the existing and effective leadership was against technological innovations—that of Satarbad. However, by taking the whole group together even this otherwise unsurmountable obstacle was overcome. Some members of the group, on their own, have adopted an improved technology with encouraging results. It is our hope that the example of these “early adopters” may lead others to follow suit.

This leads us to another reason why group is so important in this learning process. In the words of E.M. Rogers (1962:219) “it is impossible to ignore social relations in studying the spread of innovations. In fact, after an innovation is adopted by 10 to 20 per cent of an audience, it may be *impossible to halt its further spread*”.¹ In other words a minimum number of people are required for agricultural technology to be adopted; but if this minimum is secured the innovations adopted can hardly be stopped.

Much has been written about the so-called adoption process. Ryan and Gross (1943) distinguish four stages: awareness, conviction, acceptance and adoption. Singh and Pareekh (1966) speak of seven stages: need, awareness, interest, deliberation, trial, evaluation and adoption. But Pareekh and Chattopadhyay (1966) following Ramsey, Polson, and Spencer (1959) divide the whole process into two parts: first, cognitive adoption which includes awareness, information and evaluation in terms of their individual situation and second, behavioural adoption, i.e. the actual use of the new practices.

Pareekh and Chattopadhyay's scheme comes closest to our own experience. But we must add a previous stage to that of cognitive adoption. This may be called the process of psychological preparation where the potential adopter is prepared to enter into the cognitive stage. This has been discussed in Chapters 2 and 4. We have spoken of this process as the transition from a state of diffidence into that

¹Emphasis added.

of confidence—a stage where people believe that they can learn. This process spreads over the cognitive stage since faith in one's ability to learn is ever in need of being strengthened. The second part of the cognitive stage includes the evaluation of the proposed innovation in the light of diffidence, leading to the final adoption which is likely to be made in a modified form to suit the economic possibilities and the socio-cultural realities. A hundred per cent adoption may be an unwise step!

In the cognitive stage several steps have to be taken. *First* comes information or the explanation of the measures to be adopted. *Second*, there must be a clear understanding of the reasons why these measures have to be taken. No amount of time given to the understanding of these reasons is wasted. This makes for the development of the participants inasmuch as it makes them think. Were these courses to achieve only this we would consider them a great success. Thinking introduces an element of rationality in a milieu where things are done because they have always been done that way.

The *third* step deals with the defence mechanisms developed by the participants. Accepting the desirability of a change means being pressurised into a choice. The obvious choice may be a logical necessity, but it may not be to their liking. Hence they resist it. This stage of the defence mechanisms is a very delicate one. Their objections cannot be dealt with at the logical level, since they spring from fears of the consequences of adoption. One has to dig deep into these fears, bring them to the surface, accept them as part of the whole reality and help the participant to deal with them in the best possible way. When this procedure is followed, the participants can be very creative indeed. And when this happens they have reached the *fourth* step, or the creative acceptance of technology. In our experience if these steps have been followed during the course, behavioural adoption takes place in their back-home situation.

As for the degree of adoption we must confess that we have not done any serious research using sophisticated methods such as those devised by Pareekh and Chatto-

padhyay (1966). All that we can say is that of the 179 persons interviewed, 152 or 84 per cent had adopted some new agricultural practice which was taught in our courses.

E.M. Rogers (1962:217-220) stresses the importance of personal influence especially in the decision-making process and he quotes Radhukar (1958) saying that neighbour-to-neighbour communication was of greater importance to the diffusion of farm innovations than any other communication channel in this study of India's villagers. This personal influence we believe to be a part of the importance of the community. A new decision requires the support of the people with whom one lives. In our experience our personal influence as trainers and friends of the participants is very important at the earlier training stages when we encourage the trainees to make the decision to learn and to face their own fears. It is much less important in the decision-making process itself, where the other participants play a much more important role. We, of a set purpose, try not to influence their decision—our effort being mainly to help them start a sound decision-making process.

Rudra Dutt Singh (1952) brings out the importance of the human approach in a study of the introduction of green manure. Common sense is enough to realise that this approach is absolutely necessary. People dislike being talked down to as much as they like being treated like friends and brothers of a common family. Once this climate of friendliness and mutual trust is established, the channels of communication are thrust open and learning becomes possible.

Studies carried out by Bose and Dasgupta (1962) show that certain agricultural practices are adopted more easily than others. In the first category they include the use of sulphate of ammonia and plant protection chemicals and among the latter, Japanese paddy cultivation and green manuring. The Japanese paddy cultivation method found little favour with them and our participants also, though our courses made a special attempt to teach this method with a reasonable measure of success.

If we consider that not all our participants came from paddy-growing areas and that even in some of those villages

where paddy was grown, it could be grown only in low-lying areas, of a possible 70 potential adopters 34 (almost half) had adopted the new method of paddy cultivation. It would be an interesting field for future research to study the impact that these early adopters have had on the rest of the community; and, before that, whether they themselves had persisted in the newly adopted method.

There is another area of research which interests us very much—studies of the ability of small and marginal farmers to adopt new technology. Roy and his associates (1968:43) come to the conclusion that the size of the farm is highly related to the adoption of new technology, and then go on to say: "Aid to very small units should be considered more a social welfare than a development." On the other hand, Asok Mitra, then Secretary of the Planning Commission, (1972:34) has this to say:

The All-India Rural Credit Review Committee claimed that its basic approach towards a small farmers' development agency had emerged from extensive evidence that "the responsiveness of the small cultivators for improved practices as measured by the proportion of those who used chemical fertilizers, etc. is as much as that of the large cultivators." The significance of this sector for production, the report goes on to say...is also underlined by the increasing evidence which shows that the productivity of small farms is not inferior to that of large farms operating in similar conditions in respect of the use of inputs and that the small farmers are as progressive in this respect as the large farmers.

Our experience with both big farmers and small seems to confirm the findings of the All-India Rural Credit Review Committee. But then Asok Mitra goes on to say (p. 50): "What stands in the way of availability of the new inputs to the small and marginal farmers really boils down to the scarcity of credit." There is no doubt that the credit available to the big farmer is not available to the small farmer. However, one really wonders if credit alone would enable the small farmers to adopt modern agricultural technology.

We have thought it proper to relate our rural develop-

ment work to the studies made in India on the diffusion of agricultural innovation. But, having done so, two things must be remembered. First, the aim of these studies is research; while our main aim is educational. And, secondly, as Mookherjee (1975:138) observes, "most of the diffusion studies in India follow the pattern of studies made in the United States. One of the major purposes of these studies is to see whether or not generalisations made on the basis of research findings in the United States also hold true for a traditional society like India." This may be the reason why so many of these studies often seem to be irrelevant to the needs of rural development. This writer has chosen those more directly related to the work done by us. Some of them have proved helpful. One can only hope that future research may shed more light on, and give clearer understanding of development work.

Over and above the studies on the diffusion of agricultural innovations in India, there is also a vast literature on extension education itself. The Directorate of Extension (1961), Ministry of Agriculture, published, years back its own manual on extension education in community development; and the National Institute of Community Development, Hyderabad, has a long list of publications to its credit. It would be a very lengthy task to analyse all this literature in the light of our own experience. As such it would be perhaps better to point out in what way our scheme differs substantially from the approach propounded by them.

1. Our programme stresses the idea of community during the training itself by accepting members of only one community for training. Community is understood to mean members of a similar caste residing in the same place.
2. Working with the community entails giving great importance to cultural and social values.
3. The main aim of our training is personal development of the man-in-the-community. Therefore, over and above socio-cultural values, the needs and feelings of the individual must be taken into consideration.

4. Training is best given outside the village in a retreat setting, where the "learning community" can gain a sense of perspective, since it is removed from the daily associations which often can be alienating.
5. During the training process the trainer's warmth and support is a very necessary element to communicate faith and courage to the participants. Faith and courage are required to make the educational process a truly creative act leading to meaningful behavioural changes.

We have now come to the end of our journey. A final glance back over the ground covered gives us reason to be cautiously optimistic. Our work makes us feel optimistic. When we started this work we were told that no peasant would leave his village and come to a college to attend a ten-day course. Or, if they ever did, all that they would be interested in would be sight-seeing. Recruitment *has* been a problem. It is true that our project has not been over-ambitious and that it made provisions for only 4 courses a year during three years, i.e. 12 courses. Still, of these 12, only two can be considered failures and that gives us an 82 per cent success rate. The two failures happened in a year which was particularly difficult for Gujarat. As our courses become better known the difficulty of recruitment is becoming less and less. Right now (April 1976) we have several villages on the waiting list—villages which have come to know about our courses from their neighbours.

If from the number of courses held we now turn our attention to the rate of occupancy, our project had made provision for 30 participants in each course. If we take into consideration the ten successful courses, then we have a possible occupancy of 300. But actually only 278 turned up for the courses and that gives us a 92 per cent rate of occupancy. Again during this year, 1976, our problem has been to keep down the numbers rather than having each course fully subscribed.

When we started this project we were extremely diffident about our ability to teach the weaker sections of society. We had our doubts even about our ability to teach the better-off farmers. Soon we realised that our goal was an

easy one with upper caste people. This realisation and a sense of social justice made us change from upper to lower caste participants. Our fears of the difficulties in a course for uneducated participants belonging to the Backward Classes made us lower our targets. The results have been amazing—we have achieved a greater rate of growth with the Backward Classes than with the dominant castes.

Therefore, education is not only a powerful means to increase agricultural production, but also an effective instrument of social uplift. The Backward Classes become more active, more hopeful, more effective and, consequently, more productive. It is not only that their economic situation improves; but also, in the process, they gain self-respect and a new sense of belonging and well-being.

Our work makes us feel optimistic because we have been able to see the impact of our training in tangible material results—an economic progress which we have tried to quantify in terms of rupees. We felt there was a need to study the economic impact of our training for ourselves (so that we may receive necessary feedback) and also to underscore the importance of education in rural development. We only hope that our tentative conclusions may not attract undue attention, distracting our readers from the rest of the study which we consider more important.

If the economic results make us feel optimistic, there is something in our project which gives us a deeper joy and a greater satisfaction; and that is the pride and joy of our former trainees when they show us their new accomplishments. There is a pride in their own achievements; theirs is a joy of a person who begins to emerge from a subsistence level into an improved present and a promising future, relying mainly on his own abilities greatly enhanced by education.

Even so we cannot but feel chastened when we look at the work to be done. What can a team of three professors, giving ten-day courses do in the 5,00,000 villages of India? This question hardly came to our attention during the first stages of our project. Our attention was mainly focused on whether or not our main idea was feasible. And as this idea became more and more of a reality, later on, our attention was then drawn to the means we could utilise to make

our work more effective. We have now reached a stage where serious thought must be given to the immensity of the task before us.

One answer to this question may be to shift our emphasis from the village community to the area community. By taking up the caste elders of a whole region it might be possible to spread education covering a much larger ground in much less time. Our role, in this case, would be that of preparing trainers—the caste elders—who then would train the rest of the community.

Another answer to the same vexing question would be to mobilise the vast number of educational institutions in the country and that great mass of unemployed graduates which are turned out by our universities every year. Granted that not everybody is temperamentally suited to do this kind of work; still, there will be many people who could do this work very successfully. And, indeed, there are many people who at present are wasting much of their talent in tasks which are not suited to their abilities.

Finally, while answering this question one must not forget that our approach is only *one* of the many approaches to rural development. Even within the educational field, ours is non-formal education. Much can be done to make formal education more effective. Much is being done and more still could be done to educate the masses through the modern means of mass media of communication, as well as the utilization of the traditional means of mass contact, like the *kathas*,¹ *bhajan mandalis*,² plays, dances etc. Each approach has advantages and shortcomings. Thus the mass media reach a much wider public, but they do not give sufficient scope for personal interaction. Our approach allows us to work at a much deeper level, but it limits our scope to a few individuals. There is thus plenty of scope for everybody to work. It is our hope that our efforts would be an effective, even if small, contribution to this great task of building up rural India.

¹Recitation of usually religious events interspersed with hymns sung by the whole congregation.

²Meetings of people where *bhajans* (religious hymns) are sung alternately by the choir and the whole assembly.

APPENDIX

IMPROVEMENTS INTRODUCED BY THE PARTICIPANTS IN THEIR FIELDS

P. No.	Improved Methods of cultivation	Increase in use of H.Y.V. Fertilisers (Rs.)	Use of New crops	Compost pit in livestock	Increase in crops	Levelling Increase of land & Bundling income (Rs.)			
1	2	3	4	5	6	7	8	9	10
1.1*	—	—	—	Til oil seed	—	—	—	—	—
1.2	Use of manure—60 carts; deep ploughing	500	—	Til 40 mds Onion 1 acre	—	—	—	—	4,400
1.3	Used irrigation from natural ponds	—	—	Rice 'Jirasar' 175 mds	—	—	Pulses 50 mds	—	6,800
1.4	—	250	Pulses	Til 40 mds	—	—	Pulses 150 mds Paddy 10 mds	—	2,500
1.5	Use of manure—3 carts per acre	—	—	Til 60 mds	—	1 Buffalo	—	—	5,100
1.6	Proper weeding; use of manure—2 carts per acre	—	Pulses	Til 30 mds	—	—	Pulses 50 mds	—	2,800
1.7	Deep ploughing	200	Bajri	Til 50 mds	—	—	—	—	3,000
1.8	Use of manure—3 carts per acre	50	Bajri	Til 20 mds	—	—	Bajri 40 mds	—	2,000
1.9	Use of manure—20 carts per acre	—	Bajri	Til 20 mds Rye	—	—	Paddy 200 mds	—	5,600

*The first number stands for the course and the second for the participant.

APPENDIX

P. No.	Improved Methods of cultivation	Increase in use of H.Y.V. Fertilisers (Rs.)	Use of	New crops	Compost Pit	Increase in livestock	Increase in crops	Levelling of land & Bundling Income	Increase in Income (Rs.)
1	2	3	4	5	6	7	8	9	10
1.10	Deep ploughing; Intensive cultivation of 14 acres, 10 acres left out	50	Bajri	Til 40 mds	—	—	Bajri 50 mds	—	3,400
1.11	Deep ploughing; use of manure—3 carts per acre	500	Paddy Wheat	Til 18 mds	—	2 Buffalo	Wheat 100 mds Paddy 350 mds	—	11,080
1.12	—	—	—	—	—	1 Bullock	Paddy 15 mds	—	375
1.13	—	—	—	—	—	—	—	—	—
1.14	—	—	—	Til	—	—	—	—	—
1.15	—	—	—	Til 15 mds	—	—	—	—	900
1.16	—	—	—	Til 30 mds	—	—	—	—	1,800
1.17	—	—	—	Til 30 mds	—	—	—	—	1,800
1.18 ^a	—	—	—	—	—	—	—	—	—
1.19 ^b	—	—	—	—	—	—	—	—	—
1.20	Deep ploughing	50	—	Til	—	—	—	—	—
10		7	7	16	0	3	8	0	14

^aHe is a government Gram-sevak. He has helped others to get HYV seeds and encourages farmers to adopt new methods of agriculture.^bHe sold his bullock, due to financial difficulties at home, and gets his land tilled on $\frac{1}{2}$ share basis.

P. No.	Improved Methods of cultivation	Increase in use of Fertilizers (Rs.)	Use of H.Y.V.	Use of New crops	Compost pit	Increase in livestock	Increase in crops	Levelling of land & Bundling Income (Rs.)	
1	2	3	4	5	6	7	8	9	10
2.1*	Constructed a well; bought tractor; deep ploughing	4,000	Wheat Paddy Bajri	Varyali	—	—	Wheat 200 mds Paddy 150 mds Bajri 50 mds Brinjal Rs 15,000	—	21,000
2.2	—	1,500	Wheat	—	—	—	Wheat 200 mds Paddy 200 mds Brinjal Rs 5,000	—	11,000
2.3	New method of sowing paddy	1,000	—	—	—	1 Buffalo	Pulses 30 mds Paddy 200 mds Bajri 100 mds Brinjal Rs 5,000	—	—
2.4 ^a	Use of manure—4 carts per acre	1,500	—	—	—	—	—	—	10,000
2.5	Use of manure—4 carts per acre; new method of sowing paddy	4,000	Paddy Onions	Onions	—	—	Wheat 400 mds Bajri 100 mds	—	14,000

*The first number stands for the course and the second for the participant.

^aThe participant is serving at Ahmedabad. But he had instructed his father on new methods in agriculture.

P. No.	Improved Methods of cultivation	Increase in use of Fertilisers (Rs.)	Use of H.Y.V.	New crops	Compost Pit	Increase in livestock	Increase in crops	Levelling of land & Bundling Income (Rs.)	
1	2	3	4	5	6	7	8	9	10
2.6	Use of manure—70 carts	2,000	Cotton	Brinjal	—	—	Paddy 25 mds Cotton 30 mds	—	12,000
2.7	Deep ploughing; irrigation; new sowing method	5,000	Bajri Paddy	Varyali	—	—	Wheat 200 mds Bajri 50 mds Paddy 150 mds Brinjal Rs 15,000	—	27,000
2.8	Deepened well	4,000	Wheat	Chikory Wheat seed plot	—	—	Wheat 73 mds Brinjal Rs 14,000	—	10,000
2.9	Deep ploughing; care in sowing	150	Wheat Paddy	Brinjal	—	—	Wheat 50 mds Paddy 60 mds	—	3,000
2.10	Tube well constructed	1,000	Wheat	—	—	1 Buffalo	Wheat 150 mds Paddy 150 mds	—	9,000
2.11	New sowing methods; better care of crops	10,000	Paddy Wheat	—	—	—	Wheat 150 dms Paddy 250 mds Brinjal Rs 25,000 Cotton 100 mds	—	40,000

P. No.	Improved Method of cultivation	Increase in use of H.Y.V. Fertilisers (Rs.)	Use of New crops	Compost	Increase in livestock	Increase in crops	Levelling of land & Bundling	Increase in Income (Rs.)	
1	2	3	4	5	6	7	8	9	10
2.12	—	100	—	Brinjal	—	1 Buffalo 1 Bullock	Wheat 40 mds Paddy 20 mds Bajri 15 mds	—	2,000
2.13	Deep ploughing; worked on cooperative basis on 8 bighas of land	1,500	Paddy	—	—	—	Wheat 150 mds Paddy 175 mds Brinjal R 14,000	—	22,000
2.14 ^b	—	—	—	—	—	—	Brinjal Rs 6,000	—	6,000
2.15 ^c	—	—	—	—	—	—	—	—	—
2.16	Bought 10 bighas of land	—	—	Brinjal Pulses	—	—	—	—	—
2.17	Started independent farming; new method of sowing	500	—	—	—	—	—	—	—
2.18	—	1,000	—	—	—	—	—	—	—
2.19	New method of sowing	100	—	Vegetable Brinjal	—	—	Paddy 20 mds	—	500

^bHe is a paid Talati-cum-Mantri and hence this is his extra income which he gets as his share in his land.

^cHe has given up agriculture and taken to business where he now earns an extra Rs 900 per year.

P. No.	Improved Methods of cultivation	Increase in use of H.Y.V. Fertilisers (Rs)	Use of H.Y.V.	New crops	Compost Pit	Increase in livestock	Increase in crops	Levelling of land & Bundling	Increase in Income (Rs)
1	2	3	4	5	6	7	8	9	10
2.20	New sowing method in paddy	4,000	Wheat Paddy	—	—	—	Paddy 150 mds	—	6,500
2.21	Better sowing method	5,500	—	Cotton, Shankar '4' Varalaxmi	—	—	Paddy 80 mds Brinjal Rs 4000	—	4,000
2.22	New method of sowing paddy; new implements for paddy	1,000	Paddy	—	—	—	Paddy 150 mds Wheat 100 mds Brinjal Rs 2000	—	5,500
17		18	12	10	0	3	17	0	18

P.No.	Improved Methods of cultivation	Increase in use of Fertilisers (Rs)	Use of H.Y.V.	New crops	Compost pit	Increase in live-stock	Increase in crops	Levelling of land & Bundhing	Increase in Income (Rs)
1	2	3	4	5	6	7	8	9	10
3.1*	—	—	—	—	—	1 Buffalo	—	—	2,500
3.2	—	—	—	—	—	1 Buffalo	—	—	2,500
3.3	Constructed a well	150	Cotton Shankar 4	—	—	2 Buffalo	Bajri 20 mds Cotton 10 mds	—	6,000
3.4	As cotton failed it was removed & wheat was sown	150	—	Bajri seed plot, Shankar 4 seed plot	—	1 Buffalo	—	—	3,500
3.5	Planting of trees in a scientific manner	300	—	100 Lemon trees 13 Mango trees 13 Chikoo trees 1 Almond tree	—	—	Mango Rs 2000	—	2,000
3.6	—	250	Bajri	Shankar 4 seed plot Varalaxmi seed plot	—	3 Buffalo	—	—	10,000

*The first number stands for the course and the second for the participant.

P.No.	Improved Methods of cultivation	Increase in use of Fertilisers (Rs)	Use of H.Y.V.	New crops	Compost Pit	Increase in live stock	Increase in crops	Levelling of land & Bundhing	Increase in Income (Rs)
1	2	3	4	5	6	7	8	9	10
3.7 ^a	Repair of well	2,000	—	Shankar '5' seed plot	—	2 Buffalo	—	—	40,000
3.8	Bore well	200	Bajri	—	—	—	Bajri 50 mds	—	2,500
3.9	Used compost—10 carts	1,000	—	Shankar 4 seed plot Junaghad 7 wheat seed plot	—	4 Buffalo	—	—	18,000
3.10	—	1,000	Varalaxmi	Shankar 5	—	—	—	—	1,000
3.11	—	250	—	Bajri seed plot	—	2 Buffalo	—	—	4,000
3.12	—	—	—	—	—	1 Buffalo	—	—	2,500
3.13	Deep ploughing	150	—	Wheat 40 mds Castor oil seeds 15 mds Ground nut failed	—	—	Bajri 30 mds	—	1,000

^aPrevious to the course he was serving in a textile mill, now he has taken to agriculture and on a land deal made a profit of approximately Rs. 50,000/-.

P.No.	Improved Methods of cultivation	Increase in use of Fertilizers (Rs.)	Use of H.Y.V.	New crops	Compost Pit	Increase in livestock stock	Increase in crops	Leveling of land & Bundling	Increase Income
1	2	3	4	5	6	7	8	9	10
3.14	—	—	—	—	—	—	—	—	—
3.15 ^b	—	—	—	—	—	—	—	—	—
3.16	—	—	—	Wheat	—	—	—	—	—
3.17	—	—	—	Bajri seed plot	—	2 Bullocks	—	—	—
3.18 ^c	—	—	—	—	—	—	—	—	—
7	—	10	4	10	0	10	4	0	13

^bHe is a teacher who has completed his B.Ed. and has now joined M.A.
^cHe has left off agriculture and is now expanding his business.

P.N.	Improved Methods of cultivation	Increase in use of Fertilizers (Rs.)	Use of H.Y.V.	New crops	Compost pit	Increase in livestock	Increase in crops	Leveling of land & in income bundling (Rs.)	Increase Income
1	2	3	4	5	6	7	8	9	10
4.1 ^a	—	—	—	—	—	—	—	—	—
4.2	Irrigation from his well	—	Cotton	Shanker '4'	—	1 Cow	—	—	200
4.3	—	150	Bajri & Pulses	Shanker '4'	—	—	—	—	—
4.4	—	—	Cotton	Shanker '4'	—	—	—	—	—
4.5	—	200	Cotton	Shanker '4'	—	—	Groundnut 20 mds Paddy 2 mds	—	800
4.6	Deep ploughing	200	Cotton	Shanker '4'	—	1 Buffalo	Kodra 10 mds Bajri 30 mds Groundnut 35 mds	—	1,040
4.7	Well constructed jointly; deep ploughing	200	Cotton Wheat	Potatoes, Chillies, 'Jirao', 'Ajme'	—	—	Cotton 24 mds Wheat 40 mds Cotton 30 mds Maize 45 mds	—	3,200
4.8	—	—	—	—	—	—	—	—	—
4.9 ^b	—	—	—	—	—	—	—	—	—
4.10 ^c	—	—	—	—	—	—	—	—	—
4.11	Well constructed jointly; deep ploughing	200	Cotton Wheat	Potatoes Chillies 'Jirao', 'Ajme'	—	—	Wheat 40 mds Cotton 30 mds Maize 45 mds	—	3,200

P.N.	Improved Methods of cultivation	Increase in use of Fertilizer (Rs.)	Use of H.Y.V.	New crops	Compost pit	Increase in livestock	Increase in crops	Levelling of land & bunding (Rs.)	Increase in income (Rs.)
1	2	3	4	5	6	7	8	9	10
4.12	Manure, used 3 carts per acre irrigation	150	Cotton Wheat	Potatoes	—	—	Wheat 45 mds Bajri 22 mds Cotton 28 mds	1 acre land levelled	2,960
4.13	Manure, used 2 carts per acre	50	—	—	—	1 Bullock	Groundnut 20 mds	—	800
	6	7	8	8	8	0	6	1	7

^aA landless labourer. He owns land but it is in dispute and not in his possession.

^bA peon at the Panchayat office.

^cA teacher at the Primary school in the village.

^dNephew of participant 4.7. They work on a co-operative basis.

P.N. Improved Methods of cultivation	Increase in use of Fertilizers (Rs.)	Use of H.Y.V.	Use of New crops	Compost pit	Increase in livestock	Increase in crops	Levelling of land & bunding (Rs.)	Increase in income (Rs.)	
1	2	3	4	5	6	7	8	9	10
6.1* Removed tree roots; new method of paddy sowing		—	Paddy	Sonalika Paddy	96 sq. ft.	—	Mor 4 mds	Levelling & bunding	203
6.2	—	—	Wheat Paddy	Junaghad Wheat	96 sq. ft.	—	Jowar 1 md Paddy 1 md Pulses 2 mds Mor 1 md Paddy 3 mds	—	260
6.3	New method of paddy sowing	—	Wheat Paddy	Junaghad Wheat	—	—	—	—	50
6.4	New method of paddy sowing	—	Wheat	Junaghad Wheat Onions	96 sq. ft.	—	Mor 5 kgs Paddy 1 md Cotton 2 mds	—	200
6.5	New method of paddy sowing	—	Wheat	Junaghad Wheat	120 sq. ft.	—	Paddy 5 mds Mor 4 mds Til 5 kgs Pulses 20 kgs Paddy 2 mds Pulses 5 kgs	—	300
6.6	New method of sowing	—	Paddy	Tobacco Plot	75 sq. ft.	—	—	—	300

*The first number stands for the course and the second for the participant.

P.No.	Improved Methods of cultivation	Increase in use of H.Y.V. Fertilizers (Rs.)	3	4	5	6	7	8	9	10
1										
6.7	New sowing method for paddy deep ploughing	—	Paddy Cotton	Shankar '4' Plot	120 sq. ft.	1 Buffalo	Pulses 10 mds Cotton 5 mds Shankar '4' 10 mds Paddy 25 mds Jowar 4 mds	—	—	—
6.8	New method of sowing paddy	—	Paddy	—	60 sq. ft.	—	Paddy 5 mds Mor 8 mds	—	—	400
6.9	Manure 6 trucks in 7 acres; paddy sowing new method	—	Cotton	Shankar '4' plot	75 sq. ft.	—	Mor 4 mds Banti 10 kgs. Til 3 kgs Paddy 4 mds	—	—	270
6.10	Manure 6 trucks in 7 acres; paddy sowing new method; deep loughing	—	Paddy & Wheat	—	320 sq. ft.	—	Cotton 25 mds Paddy 15 mds Wheat 15 mds	—	—	1,000
6.11 ^a	—	—	Cotton	Shankar '4' SRT	50 sq. ft.	—	—	—	—	—

^a. He gained an extra income in 1975 but he lost the money in this year's (1976) crops.

P.No.	Improved Methods of cultivation	Increase in use of H.Y.V. Fertilizers (Rs.)	3	4	5	6	7	8	9	10
1										
6.12	—	—	—	—	—	—	1 Bullock	—	1 acre of bunding	—
6.13	Manure 6 carts per acre; new method in cotton cultivation	—	—	Cotton	Shankar '4'	—	—	—	—	—
6.14	New method of sowing paddy; new cultivation of cotton	250	Cotton & Paddy	Shankar '4' 45 mds	242 sq. ft.	—	Jowar 10 mds Pulses 8 mds Paddy 25 mds	—	Bunding to stop erosion	3,230
6.15	Manure 3 carts in acre	—	Cotton	Shankar '4' 10 mds	50 sq. ft.	—	Pulses 10 mds Paddy 10 mds	—	—	500
6.16	New method of paddy cultivation	—	Cotton & Paddy	Shankar '4' & Paddy	75 sq. ft.	—	—	—	Bunding	—
6.17	—	—	—	—	48 sq. ft.	—	—	—	—	—
6.18	New method in paddy cultivation	—	Cotton & Paddy	Shankar '4' & Paddy	—	—	—	—	—	—

P.No.	Improved Methods of cultivation	Increase in use of Fertilizers (Rs.)	Use of H.Y.V.	New crops	Compost pit	Increase in live-stock	Increase in crops	Levelling of land & Bundling	Increase in income (Rs.)
1	2	3	4	5	6	7	8	9	10
6.19	—	—	—	—	72 sq. ft.	—	Cotton 4 mds Mor 3 mds Banti 4 mds	Bundling	500
6.20	—	—	—	—	48 sq. ft.	—	—	—	—
6.21	New method in paddy cultivation	—	Wheat	Wheat	48 sq. ft.	—	—	—	500
6.22	—	—	—	—	60 sq. ft.	—	Paddy 5 mds Mor 2 mds	—	150
6.23	—	—	Cotton	SRT Cotton Shanker '4'	45 sq. ft.	—	Mor 4 mds	—	160
6.24	New method in wheat cultivation	—	Wheat	Junaghad Wheat	40 sq. ft.	—	Pulses 2 mds Kodra 1 md Mor 1 md	—	120
6.25b									
16		1	19	17	20	2	17	25	17

b. He is old, the father of 6.16 and they live in a joint family.

P.No.	Improved Methods of cultivation	Increase in use of Fertilizers (Rs.)	Use of H.Y.V.	New crops	Compost pit	Increase in live-stock	Increase in crops	Levelling of land* & Bundling	Increase in income (Rs.)
1	2	3	4	5	6	7	8	9	10
7.1*	Manure 5 carts per acre; irrigation	200	Paddy	—	—	—	Paddy 200 mds	—	3,000
7.2	Used Organic Fertiliser; new paddy cultivation	200	Paddy	—	—	—	Paddy 120 mds	Planted 10 trees to stop erosion	1,750
7.3	New paddy cultivation	100	Paddy	—	—	Two cows	Paddy 40 mds	1½ acre of bundling & 15 trees planted	1,500
7.4	Manure 30 carts in two acre	—	Paddy	Pulses	400 sq. ft.	—	Paddy 60 mds	—	1,560
7.5 ^a	—	50	—	—	—	—	Paddy 25 mds	—	4,200
7.6	Manure 40 carts in one acre	200	Paddy	—	400 sq. ft.	—	Paddy 30 mds	7 acres bundling	1,250
7.7	New method in wheat cultivation	—	Wheat	Wheat	—	—	Paddy 100 mds	Reclaimed saline land	7,150
							Cotton 25 mds Pulses 40 mds		

*The first number stands for the course and the second for the participant.

^a He is serving as a secretary in the village Co-operative Society. Hence extra income.

P.No.	Improved Methods of cultivation	Increase in use of H.Y.V. Fertilizers (Rs.)	4	5	6	7	8	9	10
1	2	3	4	5	6	7	8	9	10
7.8	New sowing in paddy;	—	—	—	—	—	Paddy 35 mds	20 trees planted Bundling	865
7.9	New methods of sowing paddy manure 4 carts per acre	—	—	Bajri	—	—	Paddy 35 mds	—	830
7.10	Deep ploughing; new sowing method in paddy	300	—	Pulses	108 sq. ft.	—	Paddy 75 mds	—	1,410
7.11	—	—	—	Paddy	—	—	—	Saline land improved	—
7.12	Increased land; extensive cultivation	—	—	Paddy	—	—	—	—	—
7.13 ^b	New methods in paddy cultivation	—	Paddy Bajri	Bajri	—	—	Paddy 30 mds	—	1,825
7.14	Manure 10 carts per acre	—	Paddy Wheat	Brinjal	—	1 Bullock	Paddy 50 mds Cotton 11 mds Wheat 50 mds	—	3,200

^b His income has increased because of part-time work in drilling holes in Akik Stones, which are sold in Cambay.

P.No.	Improved Methods of cultivation	Increase in use of H.Y.V. Fertilizers (Rs.)	4	5	6	7	8	9	10
1	2	3	4	5	6	7	8	9	10
7.15	New methods in wheat cultivation	—	Wheat	—	—	—	Wheat 30 mds	—	600
13	13	6	9	8	3	2	13	6	13

P.No.	Improved Methods of cultivation	Increase in use of Fertilizers (Rs.)	Use of H.Y.V.	New crops	Compost pit	Increase in live- stock	Increase in crops	Levelling of land & Bundling	Increase in (Rs.)
1	2	3	4	5	6	7	8	9	10
10.1*	—	—	—	—	300 sq. ft.	—	Jowar 65 pura	1 acre land levelled	550
10.2	Paddy cultivation on new methods	—	Paddy	Paddy 13 mds	300 sq. ft.	—	Bajri 7 mds	1 acre bundling	705
10.3	Manure 230 carts in 12 acre land	—	Paddy	—	1734 sq. ft.	—	Paddy 45 mds Bajri 7 mds	—	2,651
10.4 ^a	—	—	—	—	200 sq. ft.	—	Bajri 7 mds	—	540
10.5	New method in paddy	—	Paddy	—	200 sq. ft.	2 Bullock	Paddy 40 mds Bajri 7 mds Kodra 40 mds Banti 20 mds	4 acre land levelled	1,380
10.6	Deep ploughing	—	—	Paddy } Banti } Kodra }	100 mds	—	Bajri 7 mds	Reclaimed	2,640
10.7	New method in paddy sowing	—	—	—	300 sq. ft.	—	Bajri 7 mds Paddy 25 mds	3 acres of land left off	765

*The first number stands for the course and the second for the participant.

a. The extra income is from his labour earnings.

P.No.	Improved Methods of cultivation	Increase in use of Fertilizers (Rs.)	Use of H.Y.V.	New crops	Compost pit	Increase in live-stock	Increase in crops	Levelling of land & bunding	Increase in income (Rs.)
1	2	3	4	5	6	7	8	9	10
10.8	Deep ploughing; manure 10 carts per acre	—	Paddy	Pulses	—	1 Bullock	Paddy 50 mds Bajri 7 mds	—	2,280
10.9	Manure 11 carts per acre	—	—	Castor oil 400 sq. ft. Seeds, Pulses	—	—	Bajri 17 mds	—	740
10.10	Deep ploughing	—	—	Pulses 10 mds	—	1 Bullock	Jowar 850 pura Bajri 7 mds	1 acre bunding	2,340
10.11	New method in paddy	—	—	—	—	1 Bullock	Jowar 400 pura Paddy 5 mds Bajri 7 mds	—	740
10.12	Manure 25 carts in 5 acres; new methods in wheat cultivation	—	Wheat	—	600 sq. ft.	—	Wheat 200 mds Cotton 20 mds Bajri 7 mds	10 acres bunding	3,120
10.13 ^b	—	—	—	—	—	—	Bajri 7 mds	—	290
10.14	Deep ploughing	—	Wheat	—	600 sq. ft.	1 Buffalo 1 Calf	Wheat 50 mds Bajri 7 mds	—	1,780

b. He has bought a sewing machine and has started his tailoring business in the village.

P. No.	Improved Methods of cultivation	Increase in use of H.Y.V. Fertilizers (Rs.)	3	4	New crops	Compost pit	Increase in livestock	Increase in crops	Levelling of land & bunding	Increase in income (Rs.)
1	2				5	6	7	8	9	10
10.15	Deep ploughing	—	—	Bajri	Castor oil seeds, Bajri	40 sq. ft.	—	Bajri 7 mds	—	240
10.16	—	—	—	—	—	—	—	Bajri 7 mds	—	140
10.17	—	—	—	—	Paddy	64 sq. ft.	1 Calf	Bajri 7 mds	—	140
10.18	—	—	—	Bajri	Bajri	—	—	Bajri 7 mds	—	140
10.19	—	—	—	—	Wheat	125 sq. ft.	—	Bajri 7 mds	2 acres bunding and levelling	140
10.20	—	—	—	—	—	—	—	Bajri 7 mds	—	140
10.21	Deep ploughing	—	—	—	Cotton	—	1 Bullock	Bajri 7 mds	1 acre levelling	1,640
10.22	—	—	—	Bajri	50 mds	—	—	Bajri 7 mds	1 acre reclaimed	140
10.23	—	—	—	Bajri	Bajri 10 mds	—	—	Bajri 7 mds	—	640
10.24	Deep ploughing; manure 20 carts in 4 acre	—	—	—	Bajri 70 mds	120 sq. ft.	1 Buffalo	Bajri 7 mds	—	1,140
10.25	—	—	—	—	—	—	—	Bajri 7 mds	—	140
10.26	—	—	—	—	—	—	—	Bajri 7 mds	1 acre reclaimed	140
10.27	—	—	—	—	—	—	—	Bajri 7 mds	2 acres levelled	140
10.28	—	—	—	—	—	—	1 Bullock	Bajri 7 mds	and bunding	140
14		0	0	10	13	13	9	28	11	28

P. No.	Improved Methods of cultivation	Increase in use of H.Y.V. Fertilizers (Rs.)	3	4	New crops	Compost pit	Increase in livestock	Increase in crops	Levelling of land & Bunding	Increase in income (Rs.)
1	2				5	6	7	8	9	10
11.1 ^a	—	—	—	—	—	—	—	—	—	—
11.2 ^b	—	—	—	—	Til	—	—	—	—	—
11.3	—	—	—	—	Cotton	106 sq. ft.	—	—	Bunding Fencing the fields 3 trees	—
11.4 ^c	—	—	—	—	—	—	—	—	—	—
11.5	Deep ploughing	—	—	Bajri	Bajri	100 sq. ft.	—	—	—	—
11.6	Deep ploughing	300	—	Castor oil seed	Pulses	—	—	—	Levelling 5 acres	630
11.7	Manure scientifically mixed with land	150	—	Bajri	Castor oil seed	100 sq. ft.	—	—	Levelling & bunding 2 acres	—
	Paddy according to new method of sowing	—	—	Cotton	SRT	—	—	—	—	—
11.8	—	—	—	Paddy	Cotton	—	—	—	—	—
11.9	Deep ploughing; new method in paddy sowing	200	—	Cotton	SRT	—	—	Paddy 150 mds	—	4,00

* The first number stands for the course and the second for the participant.

^a Left agriculture and is serving in a textile mill.

^b Left agriculture and is attending to business in the village.

^c Left to study Automobile Engineering.

P. No.	Improved Methods of cultivation	Increase in use of Fertilizers (Rs.)	Use of H.Y.V.	New crops	Compost Pit	Increase in livestock	Increase in crops	Levelling of land & Bundling	Increase in Income (Rs.)
1	2	3	4	5	6	7	8	9	10
11.10	Deep ploughing; Organic Manure; new sowing methods	200	Cotton Wheat Paddy	SRT Cotton	—	1 Buffalo	Paddy 100 mds	10 acre levelling	5,000
11.11	Deep ploughing manure 5 carts per acre	100	—	—	—	—	Paddy 20 mds	8 acre bundling	500
11.12 ^d	Deep ploughing	—	Bajri	Bajri	—	—	—	—	1,180
11.13 ^e	—	—	—	—	—	—	—	—	—
11.14	Deep ploughing; new sowing methods	300	Cotton	Basmati Paddy	—	—	Paddy 300 mds Cotton 15 mds	—	6,600
11.15	in paddy	—	—	—	—	—	—	—	—
11.15	New method in paddy cultivation	100	—	—	—	—	Paddy 20 mds	—	500
11.16	—	—	Bajri	—	200 sq. ft.	—	Bajri 30 mds	2 acre bundling	600
11.17	—	—	Paddy	Paddy	—	—	—	—	—
11.18	—	—	Bajri	Bajri	—	—	—	—	—
11.19	New method in paddy sowing	200	Paddy	Bajri	—	—	Paddy 75 mds	—	1,875
10		8	11	12	4	1	7	5	9

^d Extra income from a rikshaw.

^e Master in a primary school in the village.

P. No.	Improved Methods of cultivation	Increase in use of Fertilizers (Rs.)	Use of H.Y.V.	New crops	Compost pit	Increase in live-stock	Increase in crops	Levelling of land & Bundling	Increase in income (Rs.)
1	2	3	4	5	6	7	8	9	10
12.1*	—	—	—	—	—	—	—	—	—
12.2	—	—	—	—	—	—	—	—	—
12.3	—	—	—	—	—	—	—	20 acres reclaimed from salinity	—
12.4	—	—	—	—	—	—	—	Wheat cul.	—
12.5	—	—	—	—	—	—	—	12 acres reclaimed for Wheat cul.	—
12.6	—	—	—	—	—	—	—	3 acres reclaimed for Wheat cul.	—
12.7	Deep ploughing	100	—	Wheat	—	—	—	11 acres reclaimed	—
12.8	Deep ploughing	—	Bajri	Bajri	—	—	—	2½ acres reclaimed for wheat	—
12.9	—	—	—	—	—	—	—	20 acres reclaimed for wheat	—
12.10	—	—	—	—	—	—	—	2 acres wheat	—
12.11 ^a	—	—	—	—	—	—	—	3 acres reclaimed for Wheat cul.	—

P. No.	*Improved methods of cultivation	Increase in use of Fertilisers (Rs.)	Use of H.V.V.	New crops	Compost pit	Increase in livestock	Increase in crops	Levelling of land & bunding	Increase in Income (Rs.)
1	2	3	4	5	6	7	8	9	10
12.12	Deep ploughing	—	—	—	50 sq. ft.	—	Jowar 300 mds Bajri 10 mds	50 trees planted	320
12.13	Deep ploughing	—	—	—	—	—	—	—	—
12.14 ^b	Deep ploughing	—	—	Pulse 40 mds	—	—	Cotton 20 mds Bajri 20 mds	2 acre bunding	1,000
12.15	Deep ploughing	—	—	—	—	—	Cotton 40 mds Bajri 50 mds	3 acre bunding	2,000
12.16	Manure 20 carts in an acre	—	Bajri	—	—	—	—	—	—
12.17	Deep ploughing	—	—	—	—	—	—	—	—
12.18 ^c	Manure Organic Fertilizer	—	Bajri	—	210 sq. ft.	—	Bajri 40 mds Cotton 60 mds	25 trees planted	2,600
12.19	Deep ploughing	—	Cotton	—	—	—	—	—	—
12.20 ^d	Manure 14 carts per acre	—	Bajri	—	—	—	Bajri 100 mds	3 acres bunding	400
12.20 ^d	—	—	—	—	—	—	—	—	2,000
7	—	1	4	3	2	0	5	13	6

* The first number stands for the course and the second for the participant.

^a Landless labourer.

^b Has left the village as he is a bonded labourer.

^c Has started his weaving business.

^d He works with 12.8 on a joint family basis.

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This Bibliography is meant to serve two purposes. First to identify the books which have helped us in our work. Second, to help other people who want to do similar work. For this purpose the books are classified under: (T) training (G) books of a general nature and (R) books helpful in understanding the villages better. Those books we have used frequently are marked with an asterisk.

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Index

Achievement
 drives, 32-3
 syndrome, 46, 48
 Achievers, 52, 54
 Adivasis, 21, 133
 fear among, 85-6, 88
 language problem with,
 85-6, 87
 training of, 82-88
 Adoption process, 141-2
 behavioural, 141, 142
 cognitive, 141, 142
 Agencies
 to help farmers, 59, 60,
 61
 Agriculture, 3, 35, 60, 62,
 78, 83, 98, 134
 cooperation and, 37-43
 methods in, 35, 37, 76,
 77, 86, 89
 training in, 47
 Agro-industries, 49, 79
 Ahmedabad, 45, 49, 60, 106
 Akhund, 21
 Alienation, 12, 26
 All-India Rural Credit Review
 Committee, 145
 Alschuler, 55
 Ambawada, 21
 Animal husbandry, 84
 Aurobindo, 15
 Awareness, 5-6, 8, 48, 68, 142
 political, 13
 Backward communities, 76
 Banking, 78
 facilities, 3, 49
 Bank of Baroda, 27
 Behavioural
 changes, 118, 120, 146
 sciences, 118-120
 Behavioural Science Centre, 44
 Benefits
 for trainees, 129-30
Bhajans, 17, 149
 Bharvads, 102
 Bose, 144
 British empire, 12
 Broach, 21
 Bureaucracy, 25, 134
 development projects and,
 103, 106
 Cambay, 23
 Caste(s), 7, 23, 27, 29, 30, 136,
 140-1, 149

INDEX

183

dominant, 19, 21, 25, 56,
 113, 141, 148
 lower, 4, 24, 28, 73, 102
 poor, 133
 rich, 132
 upper (high), 4, 18, 25,
 26, 27, 76, 82
 Caste-system, 24
 Causation
 personal, 29
 Change, 6, 25, 139, 144
 economic, 48
 social, 13, 15, 16, 48-9
 technological, 138
 Chattopadhyaya, 142, 143
 Chinese Revolution, 10
 Christianity, 43, 96
 Christians, 15, 29, 96-8, 110-
 11
 Civilisation,
 industrial, 13
 Class(es), 9
 Backward, 141, 148
 land-owning, 1
 weaker, 141
 Communication, 46, 48, 51-52,
 64-5, 95-96, 143-4, 149
 Community
 action, 141
 development, 147
 structure, 141
 Community Development Pro-
 jects, 18
 Conflict, 9-10
 resolution, 40-41
 Cooperation, 46, 48-55, 61,
 78, 80-81, 137
 agriculture and, 37-47
 Cooperatives, 3, 7, 35,
 41, 49, 60, 99, 116-117,
 131-32
 farm management and, 39
 irrigation, 103
 Cost-benefit techniques, 121,
 129
 Creativity, 35, 61, 74, 76, 137,
 139
 innovational, 79
 Credit
 rural, 60, 131, 145
 Crop
 diversification, 39
 rotation, 49
 Cuban Revolution, 10
 Cultural invasion, 73
 Cultural Universe, 73, 139-140
 Culture, 139
 Customs, 23, 138-39
 Dashcroi, 40-41
 Dasgupta, 141
 Data Collection, 123-25
 de Charms, 72
 Decision-making, 56, 78, 144
 Democracy, 58
 villages and, 25
 Development, 1, 5, 140
 agencies of, 41, 59, 60,
 61, 140
 dilemmas of, 8-10
 economic, 40, 61, 66, 70,
 71, 118, 140
 government and, 17-18-19
 organisational, 62, 119,
 131, 136
 psychological factors in,
 47
 Differentiation, 68-69
 obstacles to, 69
 Droughts, 1, 29

- Dry farming, 38
 Dube, S.C., 23
- Economic and Scientific Research Foundation, 38
 Economy, Western, 35
 Educational
 institutions, 1, 2
 services, 2, 21
 Education, 7, 19, 51, 72, 79, 120, 141
 agricultural, 2
 as a historical process, 8
 formal, 3, 7, 47
 non-formal, 8, 118
 philosophy of, 69
 psychological, 45
 rural, 3
 Electrification, rural, 19
 Employment, 8
 Expectancy patterns, 32-3
- Faith, 71-72, 77-8
 Family, 23
 Farmers, 47, 137
 marginal, 8, 9, 82, 144, 145
 poor, 137
 small, 145
 Feedback, 45
 Fertilisers, 4, 25, 39, 49, 77, 84,
 Freire, Paulo, 52, 73
 adult literacy programme of, 73-9
 concept of Dialogue of, 73
- Gandhi,
 approach to rural development, 11-13
 on technology, 13
 Goal(s)
 group, 61, 79
 individual, 78
 Goal-setting, 46, 49
 Gradualism, 9-10
 Gramsevak, 3, 18, 54, 108
 Growth,
 economic, 34, 46, 49
 personal, 5-6, 7, 68, 69, 70, 118, 137
 Gujarat, 2, 3, 18, 25, 38, 89, 147
 Gujarati, 83
 Gujarat State Fertiliser Corporation, 38
 Gujarat University, 2
- Hagen, Everett, 34, 35
 Harvard University, 44
 Heredero, 54
 Hinduism, 97
 Hindus, 89, 90, 91, 92, 110-11
- Identity,
 among scheduled castes, 26, 27
 Illiteracy, 1
 Indebtedness, rural, 1, 25, 63
 Indian Institute of Management, 2, 44-5
 Indicators, economic, 119
 Industries, 1
 village, 19
 Inequalities,
 economic, 1, 24
 social, 24
 Information, 78, 142
 Initiative, personal 61
 Innovations, 142

- agricultural, 138, 145,
 technological, 60
 Inputs, 145
 economic, 140
 educational 119
 Interest, rates of, 1, 4, 63
 Inter-personal support, 46, 77
 Irrigation, 19, 25, 37
 cooperatives, 103
- Jawaraj, 40
 Joint Family,
 achievement drives and, 33
 expectancy patterns and, 33
 features of, 30
 initiative in, 31
 loyalty in, 30
 Judicial System, 24
 Justice, 14
 social, 9, 14
- Kaira, 38
 Kalol, 50, 60
 Kambudi, 21
 Kin, 23
 King-Martin Luther, 12
 Kubadthal, 23
- Labourers, 25
 agricultural, 1, 39
 landless, 25, 82
- Land
 holdings, 9
 improvement, 123
 reforms, 18
 Land Development Bank, 59, 60, 104
 Latin America, 16
- Leadership, 141
 Literacy, 79
- Mahetars, 27-8, 91-92
 family functions of, 27
 judicial functions of, 28
 Maier, 61
 Malnutrition, 1
 Management, 2
 form, 3, 39, 49, 77, 78
 Marx, Karl, 16
 Mass media, 149
 McClelland, 33, 44, 45, 72
 Medical care, 2
 Medical facilities, 1, 21
 Mehsana, 50
 Mishan, 122
 Mitra, Asok, 145
 Model(s), econometric, 119
 Money-lending, 25, 63
 Mookherjee, 138, 146
 Motivation, achievement, 45, 47, 62
 courses in, 46, 55
 M.S. University, 2
- National Institute of
 Community Development, 146
 National Service Scheme (NSS), 45, 62, 63, 64
 Navnirman agitation, 106
 Negroes, American, 12
 Nehru, Jawaharlal, 11
 Norms, 39
 N.T.L. Institute of Applied
 Behavioural Sciences, 66-67, 73
- Origami game, 55
 Oxfam, 83

- Panchayat raj, 18
elections to, 40
Panchayats, 53
Pareekh, 142, 143
Parties, political, 14, 16
Patels, 21, 22, 49, 58, 102, 107, 114-115
Pesticides, 77-78
Planning, 49
Planning Commission, 145
Political action, 74
Polson, 142
Poverty, 1, 25, 36
Power, 5, 9, 12, 13
devolution of, 18
Praxis, 73
Prices, 126-29
Problem-solving, 48
Productivity, 1, 62
of land, 119
Progress, 48
culture, 15
economic, 15, 62, 77, 89, 119, 137, 148
social, 69
technological, 14
Psychology, 72
Radicals, 13
Radhukar, 144
Rajkot, 116
Rajputs, 22, 91, 108 113-4
Ramsey, 142
Rancharda, 21
Recruitment
to courses, 43, 120
Religion, 6
rural development and, 15-17
Renaissance, Hindu, 15
Rogers, 138, 142
Role, 61
Roy, 145
Roy, Ram Mohun, 15
Rudolph and Rudolph, 12
Rural development, 4, 45, 47, 118-120
aims of, 76-7, 118
approaches to, 4-5, 11-19
economic progress and, 62
educational approach to, 5-8, 16
Gandhian approach to, 11-16
governmental approach to, 17-19
methods of, 77-8, 118
non-formal education and, 138, 148
political approach to, 13-14
religious approach to, 15-17
technological approach to, 14
Rural Works Manpower Programme, 18
Satellite villages, 102
Saurashtra, 40, 95
Scheduled castes, 21, 22, 23, 82, 108, 113, 116, 133
disabilities of, 25
identity among, 26-7
status of, 28-9
training of, 88-100
Science, 14, 39
Scientists, social, 16
Seeds, 25, 39, 49, 78
hybrid, 39
HYV, 77

- Self-study, 46
Shadow prices, 121, 126
Simulation game, 98
Singer, Milton, 30
Singh, Rudra Dutta, 144
Small Farmers Development Agency (SFDA), 18, 103-105
Small Industries Extension Training Institute (SIET), 45
Social change, 14, 15, 48-9
Social Structure(s), 13, 18, 29, 48-9, 66, 89, 114
Societies,
inequality in, 22
rural, 1, 5, 9
traditional, 146
urban, 1
Soil erosion, 38, 49
Spencer, 142
Spicer, 138, 140
Status, Social, 23
of Scheduled castes, 26
St. Xavier's College, 43, 44
Sub-villages, 24
TAT test, 50
Teaching methods, 120
Team work, 80-1
Technocrats, 14, 140
Technology(ies), 5, 7, 9, 13, 14, 62, 68, 139, 143, 145
agricultural, 1, 2-3, 7, 34, 37, 49, 60-8, 80, 88, 119, 136, 138, 140-141
T-group (s), 74, 80, 93, 131-2
Thakors, 21, 22, 58, 102, 114
Thakor-Patel rivalry, 58
Tradition, 138
Tribals, 21-22
training of, 82-8
Tribes, 31
Trust building, 48
Trusteeship, 12
Under-employment, 1, 24
Unemployment, 1, 24
United States, the, 11, 146
Untouchability, 11, 140
Values, 46, 48, 49, 141
cultural, 39
social, 23, 39
urban, 62
Vankars, 27-9, 83-100, 110-114
leadership pattern in, 27, 91
oppression of, 25-6
religious differences among, 89
unity of, 92
Variables,
endogenous, 119
exogenous, 119
Vasava, 22, 83
Villages,
caste in, 23-4, 27
in Gujarat, 21-4,
socio-economic surveys of 46
Violence, 9, 12
Vivekanand, 15
Wages, 1-2, 3, 24
Weir, Dr. John, 67
Xavier Research Farm, Mo-
gar, 60, 65, 78, 83, 86-87, 125, 136
Youth, rural, 34
Zamindari System, 19

222239