AGRICULTURAL EXTENSION EDUCATION

Introduction to Agricultural Extension Education

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CONTENTS

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Introduction

The world's population in the underdeveloped countries are living the life of poverty. This area encompasses South-east Asia, Africa and Middle-east. These countries were for many years/centuries under foreign rule and subjected to exploitation. As a result, state of ignorance, superstitions, unhealthy environment and illiteracy took roots in these countries. India is also one of these countries, which was under foreign rule. In India, 60% people are in the grip of poverty and about 67% people are illiterate. Population, in India is increasing continuously and land ratio per person is decreasing. The total land area of India is 143 million hectares of which 108 million hectares is dependent on annual rainfall and from this type of dry land only 42% of total agricultural production is produced. In such critical conditions an all-round development of people is a tough task. But, through the medium of Extension Education it has become a slightly easier task.

The Goal of Extension Education is an all-round development of rural people.

There are certain other questions, which come to the minds of the students. They are:
    (i) What is Extension Education?
    (ii) When and where did it originally begin?
    (iii) What were the circumstances responsible for it?

The word *"Extension"* was first time used in Britain in 1840 in the form of *"University Extension"* or *"Extension of the University"*. In 1850, William Sewell of Britain used it in his report entitled *"suggestions for the extension of the university"*. But, this word was first used in a practical way by James Stuart of Trinity College, Cambridge University in 1867-68, when he was addressing *"Women Association and Working Men's Clubs"* of North England. Again in 1871, he appealed to the officials of the Cambridge University to establish extension centres under the supervision of university, so that these centres can be used as a platform to deliver lecture to the people. His effort in this field was responsible for him being called *"Father of University Extension"*. In a formal way, Cambridge University in 1873, London University in 1876 and Oxford University in 1878 developed extension system, which worked among people. In 1880, his work came to be known as *"Extension movement"* .

In the eighth decade of the 19th century, the word Extension was used in the form of Extension education in U.S.A. The reason was that in the latter half of the 19th century rural people had started migrating to urban areas. This led to two major problems in U.S.A.:
    (i) due to the migration of rural people to cities, the agriculture suffered a setback, and
    (ii) the increase of urban population created education, employment and housing related problems.
Therefore, to solve this problem, the Philadelphia Committee was established in 1785. The committee suggested that in order to keep rural people in rural areas "Out of school education" should be given to them.

According to Webster's dictionary the term "Extension" means "Branch of a university for student who cannot attend the University properly". In other words, the word 'Extension' is used in the context which signifies an out of school system of education." In 1862 President Roosevelt established a "county commission" under the chairmanship of Liverty Hydevelle. Its objectives were:

(i)   How to stop migration of rural people to cities?
(ii)   How to engage rural people in agricultural and rural development programmes?

It was due to the fact that industrial development is not possible without agricultural development so, maximum people must live in the villages and help in the agricultural development. County commission in its report stated that firstly, there is vast difference between rural and urban life and this should be lessened. It further stated that the standard of living of rural people can be uplifted permanently only when they themselves make an effort in this direction. Secondly, in order to encourage people to take initiative, it is prerequisite that the change in the field of knowledge, understanding, skill and attitude should be brought about.

In order to implement the above recommendations educational work has to be taken upon. Therefore, county commission recommended the establishment of an institution, which can organize out of school education. Keeping this in mind Smith Leaver Act (1914) was passed and this Act led to the integration of cooperative extension service according to which out of school education was organized. As a result, rural people were able to bring about developments and progress in farming and housing. This type of education comes to be known as "Agricultural Extension Education".

Why Extension? In reality it is seen that what was applicable in the past is obsolete at present and likewise it can be said that techniques and methods prevalent at present cannot be applied in future. The nature of problem is changing day by day, therefore, in order to scientifically tackle new problems, it is necessary that there should be such an institution, which should act as a bridge between scientists and farmers, it should introduce new techniques to the farmers and address the problems of farmers to the scientists.
Research Centre ◄►   Extension Personnel ◄►   Problems of People.
Such an institution, which mediates between farmers and scientists was established and is called "Extension system". The people working in this institution are called "Extension personnel "

Why Study Extension? It is more important to lay emphasis on "How to teach" instead of on "What to teach" so that the people can be encouraged to adopt new research techniques easily. In other words, if a person is very knowledgeable of various methods and techniques but does not know how to explain them or express them, then his knowledge has no meaning. Therefore, the power to express knowledge and viewpoint also plays a crucial role.

Extension Personnel should not only be aware of objectives and programmes but should also be aware of prevalent conditions, problems, requirements and circumstances. After analysing, the situation the extension personnel should give information about scientific techniques, so that the people according to their needs and requirements can adopt them. Therefore, the study of extension education is necessary for extension personnel, so that they can encourage the adoption of new techniques.

Meaning of Extension Education: Various Scientists have defined the term "Extension" according to their interest, experience and training. This term was first used in a customary way in U.S.A. Afterwards it was used by many countries. Extension education is used in various

fields, such as Agriculture, Animal Husbandry, Dairy, Veterinary, Health, Home Science, Industry, Cooperative and Forestry. Now, Extension Education is included in the syllabus of Graduate and Post-Graduate classes. Therefore, it is necessary to understand basic concept of Extension Education for those who are associated with it in some way or the other. To fully understand the nature of extension education, it is important to study various definitions given by different scholars.

Definitions:

(1)   Extension education is an applied science consisting of content derived from research, accumulated field experiences and relevant principles drawn from the behavioural science synthesised with useful technology into a body of philosophy, principles, content and methods focussed on the problems of out of school education for adults and youth.– **J.P. Leagans (1961)**

(2)   Extension education is the process of teaching rural people how to live better by learning ways that improve their farm, home and community institutions   – **J.P. Leagans (1961)**

(3)   Extension work is an out of school system of education in which adult and young people learn by doing. It is partnership between the Govt. and the people, which provides service and education designed to meet the people. Its fundamental objective is the development of the people. – **Kelsey and Harne (1963)**

(4)   Extension is a programme and a process of helping village people to help themselves, increase their production and to raise their general standard of living. – **D. Ensminger (1961)**

(5)   We can define Extension as the increased dissemination of useful knowledge for improving rural life.   – **H.W. Butt (1961)**

(6)   Extension is a two-way channel; it brings scientific information to the village people, and also takes the problems of the village people to the scientific institution for solution. It is a continuous educational process, in which both learner and teacher contribute and receive. – **B. Rambhai (1958)**

(7)   Extension Education is defined as an educational process to provide knowledge to the rural people about the improved practices in a convincing manner and help them to take decision within their specific local conditions.   – **O. P. Dahama (1973)**

(8)   Agricultural extension is a professional method of non-formal education aimed at inducing behavioural changes in the farmers for increasing their income through increased production and productivity by establishing firm linkages with research for solving farmer's problems ensuring adequate and timely supply of inputs and using proven methods of communication for speeding of the process of diffusion and adoption of innovations."   – **Y. C. Sanoria (1986)**

From the above definitions, it is concluded that "Extension education is an education and it is bringing a desirable change in behaviour (knowledge, skills and attitudes) of rural people to improve their social, economic and psychological status".

Components of Behaviour: The behaviour of an individual, in a broad sense, refers to anything the individual does. This is goal-oriented, it includes the goals one selects and the means one chooses to achieve these goals and, as such, it is action-oriented.

Parsons and Shils (1965) proposed a theory of action, which could serve as a conceptual model for the analysis of human behaviour. They say that:

(i)   Behaviour is oriented to the attainment of ends or goals or other anticipated state of affairs;

(ii)   It takes place in a situation;

(iii)   It is normatively regulated; and

(iv)   It involves expenditure of energy or effort or motivation.

According to Leagans (1961), behaviour refers to what an individual knows (knowledge), what he can do (skills-mental and physical), what he thinks (attitudes) and what he actually does (action).

Behaviour is, therefore, a function of the person in interaction with the situation. The factors motivating behaviour either in the person or situation are:

(i)   An environmental determinant;

(ii)   The internal urge, wish, feeling, emotion, drive, instinct, need, want, desire, demand, purpose, interest, aspiration or motive which gives rise to the action; and

(iii)   The incentive or goal, which attracts or repels an organism.

When the relationship between environmental and behavioural components is not identifiable, some hypothetically intervening variable is postulated to account for the behaviour. Thus, individual variations do exist in the learner's behaviour. His behaviour is extremely difficult to predict.

In order to bring about an all-round development in the personality of a student, a trainee or learner, a farmer, or a homemaker, etc., the teacher, or extension worker must devote attention to change in knowledge, skills, attitudes, beliefs, etc. Merely increasing knowledge or perfecting skills will not make a man educated.

Motivation in Extension Education: Motivation is necessary for mobilising the village people and the extension workers both, if our extension programme is to succeed. In pre-Independence India, the development programme could not bring the desired results because there was no motivation in the extension workers. Because the extension workers were not properly motivated to achieve the results, their efforts could not motivate the village people. In the administration, there was the absence of:

(1)   Patriotism, which could only be infused by the national leaders.

(2)   Zeal and enthusiasm service to the nation.

(3)   Recognition and appreciation for their work.

(4)   Monetary reward and advancement in cadre.

(5)   Stimulus and incentive.

(6)   A code for personnel administrators.

(7)   Educative behaviour of the superiors.

(8)   Proper training and orientation of extension workers.

(9)   Recognition of the importance of extension work and extension workers.

In the absence of these factors, the approach of the extension workers was like that of a boss, and not of a missionary and servant of the nation. Now efforts are being made to change this attitude. This section deals with how we can motivate our subordinate staff and the village people with whom we are concerned in our extension work. How to increase this motivation so that the programme is a success? In this study, we are concerned with how all the conditions associated with the various needs arouse and direct the behaviour of the organism towards the satisfaction of those needs. Internal stimuli associated with needs can either initiate activity independently or with those of the various stimuli coming from the environment. The motives or stimulus conditions, which direct our response, fall into two groups: Biological drives and Psychological and social drives.

Extension Education at a Glance: "What is Extension Education"– The following points have to be kept in mind to understand it.

(1) It is a system in which youth both male and female, adult people and women are encouraged to work for their own development and prosperity.
(2) Extension Education is an informal system of education for all rural people.
(3) Extension Education brings required change among the people of rural area.
(4) Extension Education helps only those people who are prepared to help themselves.
(5) It educates people as to how to achieve their target.
(6) Extension Education educates people through "learning by doing" and "seeing is believing".
(7) Extension Education is a two-way system of education. It brings scientific knowledge to the rural people and conveys the problems of rural people to the scientific institution for solution.
(8) Extension Education works together with the rural people, and thereby helps people to bring prosperity to their home, family, society, community and country.
(9) Extension Education helps in personality development, raising standard of living of people, developing local leaders and development of society and country.
(10) Extension Education is a continuous educational process, which goes on between teachers and learners. In this both teacher and learner benefit and learn from each other.

Concept of Extension Educational Process: Extension is a continuous educational process. Primarily, in an effective extension education programme, the following five stages are included (Leagans 1971):

1. **Study of situation and problem**–At this stage Extension Personnel should collect all information about farmers, i.e., farmers education, interest, requirement, way of thinking, viewpoint and social status. Information related to physical condition, i.e., type of soil, types of land, market, cropping method, size of land, family status, community service, communication facilities etc. should be collected and study of local, social, national and international problems should also be undertaken. Extension Personnel should analyse these factors on the basis of "What they are" and "What they ought to be". Only after analysing all these problems the solution should be considered.

2. **Objectives and solution**–At this stage, objectives of Extension Education should be according to above-mentioned requirements. In drafting the objectives the Extension Personnel should keep in mind the following points:
    (i) Objectives should be limited and extremely important.
    (ii) Participation of rural people should be compulsorily included.

(iii)   Objectives should be able to bring about desired change in human behaviour.

3.   **Teaching plan of work–**There are two main points in this third stage: (i) What should be? and (ii) How it should be? In this stage, extension methods should be selected and all the conditions necessary for learning process should be created so that the people can easily learn it to solve their problem and bring about change in their behaviour. How the Extension Personnel selects the extension methods will reflect his true capabilities and worth.

4.   **Evaluation–**At this stage, all the work done until now is evaluated and it is seen that whether the objectives were properly chosen and how they are executed. From this we can figure out whether we are going in right direction or not. The success and failure of extension educational programme depends on this stage of evaluation. The facts should be analysed without any bias during evaluation.

Difference between Extension Education (Informal Education) and Formal Education

S.No.	Extension Education (Informal Education)	Class room Education (Formal Education)
1.	It is an informal education. It has no definite syllabus. There is no examination, and no degree or other certificate is given to the participating student.	1. It is a formal education. It has a definite syllabus. After completing the syllabus, students have to appear in an examination and after evaluation; the degrees and certificates are awarded to the student.
2.	The work of extension education is according to the needs of the people and availability of resources.	Institutional Education has a definite programme and do not run according to the needs of the student
3.	In it, the problems of the people are solved by the people.	3. In it the problems of the student are solved by the teacher.
4.	People involved are of different age and abilities.	Students are of same age and the same qualification.
5.	Teaching is according to the interest of the of the learner.	Here, teaching is according syllabus.
6.	The field of extension education being related to farms and villages is unlimited.	Its area is limited in the institution only.
7.	The rural people learn with their own desire.	In it, the students have to learn compulsorily.
8.	The presence of the rural people is voluntary.	The presence of the student is compulsory.
9.	In extension education the teacher also learns from the learner.	In it, the teacher, only instruct the student.
10.	By extension education the human behaviour is changed.	In the institutional education, only the knowledge of student is increased.

5. **Reconsideration**–If our evaluation results indicate that our aim and objectives are not fulfilled and that we have to do the work again than we should repeat educational process from first step to the last step.

In this way, the extension educational process continuously goes on till the all-round development of people is achieved.

Objectives of Extension Education: The main aim of Extension Education is to bring about all-round development of rural people. In this all-round development educational, social, economic and political developments are included. The first aim of Extension Education is to bring change in the behaviour, in work capacity and in attitude in wider context. The second aim of Extension Education like social, economic and political change is automatically achieved by bringing about above mentioned educational changes. How to achieve this aim is known as objectives. In this context the objectives of Extension Education are as following:

(1) To increase the net income of farmers by more production and proper marketing system.
(2) To raise the standard of living of rural people.
(3) Development of rural areas.
(4) To increase the facilities for social, cultural and entertainment programmes for rural people.
(5) To develop rural leadership.
(6) To develop the feeling of self-dependence among rural people.
(7) To provide educational and health facilities in rural areas.
(8) To develop feeling of patriotism and love for society by developing civic sense among rural people.
(9) To encourage rural people to participate in community programmes.
(10) To train rural youth for development works.

Characteristics of Extension Education: Extension Education is-

1. Co-operative in nature,
2. Broader in scope,
3. Informal in nature,
4. Flexible in order to meet the needs,
5. Primarily concerned with teaching it's clientele,
5. Voluntary in participation, and
6. Family centred,

Scope of Extension Education: Extension work will speed up only when the development of factors related to it i.e., (1) Man Environment; (2) Basic structures (Gram Panchayat, Village School and Cooperative Societies) will be undertaken.

(A) Personal development of people:

(1) Increase in agricultural production so that standard of living can be raised.
(2) Facility for rural industry related knowledge.
(3) Facility for advance techniques/methods.

(4) Development of co-industries like animal husbandry, poultry, goats and pigery farming etc.

(5) Training the people for development of agriculture and rural industry.

(6) Proper educational facilities for rural people.

(7) To inculcate self-confidence, self-dependence and desire to work themselves among rural people.

(B) Development of environment of people:

(1) Arrangement of family-education.

(2) Eradication of prevalent social evils.

(3) Development of democratic ways.

(4) Maximum use of available resources for community work.

(5) Management of rural hygiene and environment.

(C) Development of basic institutions:

(1) To develop confidence and respect for these institutions.

(2) To develop feeling of responsibility among the people.

(3) To increase cooperation of maximum number of people.

Philosophy of Extension Education: The word philosophy is derived from two Greek words 'Philos' and 'Sophia'. 'Philos' means knowledge and 'Sophia' means manner. In this way the correct meaning of philosophy is the manner of achieving the knowledge. Extension education is beneficial aspect of life, which besides being organized, calm and peaceful is welfare oriented. Philosophy of extension education encourages a person to bring about his own development and that of society through his own leadership and motivation by following scientific approach and democratic ways. It further states that the interest of the community should not suffer because of personal interest. In other words philosophy of extension education considers development and progress of individual as a foundation for the development and prosperity of the family, society and the country.

D. Ensminger (1961) has described the philosophy of Extension in the following ways:

1. It is an educational process. Extension wants to change the knowledge, attitudes, understanding and skill of the people.
2. Extension is working with men, women, youths, boys and girls to answer their needs and their wants. Extension is teaching people what to want and ways to satisfy their wants.
3. Extension is "helping people to help themselves."
4. Extension is working on the basis of learning by doing and seeing.
5. Extension wants development of individuals, their leaders, their society and their world as a whole.
6. Extension is working together to expand the welfare and happiness of the people.
7. Extension is working in harmony with the culture of the people.
8. Extension is a two-way channel process.
9. Extension is a continuous educational process.

Prof. O.P. Dahama (1966) has recommended the following points of philosophy of extension education:

1. Self-help.
2. People are the greatest resources.

3. It is a cooperative effort.
4. It has its foundation in democracy.
5. It involves a two-way channel of knowledge and experience.
6. Programme is based on creating interest by seeing and doing.
7. Voluntary, cooperative participation is the basis of programme.
8. Persuasion and education of the people.
9. The programme is based on the attitudes and values of the people.
10. It is a never-ending process.

Prof. Rudramurty (1964) –Philosophy of extension education is related to philosophical views of Vedas, Upanishads and Geeta, which are necessary for human beings.

Principles of Extension Education: Specifically, the principles of extension education means doing those works, which are essential for the success of extension philosophy or those approaches, which are needed to be successful in the philosophy. Principles of extension education are simple, easy, educative and moral. Generally principles of extension are as follows:

1. **Principle of need and interest**–Extension work is self-educative process. To make extension work more effective, it is necessary that it should be done according to peoples' needs and interest. Extension worker should take notice of local peoples' needs. As this will generate interest of the people which in turn will lead to their cooperation in extension work

2. **Principle of cooperation and participation**–Principle of cooperation and participation is very important in extension education. Ultimately without the cooperation of people the work cannot be successful and desired result cannot be achieved. The first task of extension education is the cooperation of people and their participation in work. People should realise that the task of extension education is their own task. Participation in extension work generates confidence among people for the work. It is not essential that all the members of the society should participate but extension worker should try for maximum participation of people.

3. **Principle of cultural difference**–Rural people have high faith in traditional customs and values. Therefore, extension worker should be aware of what the rural people know, Think and also about their belief. Cultural changes should be gradual and in accordance with the cultural status of people. It is very difficult to achieve success in extension work by neglecting their views and cultural behaviour.

4. **Principle of applied science and democratic approach**–Extension Education is based upon democratic principles. It is based on discussions and suggestions. Discussions are held with the people on actual condition so that they participate in work. Extension worker provide practical look to the scientific inventions so that farmers can easily adopt them in their farm.

5. **Principle of learning by doing**–According to this principle farmers are encouraged to learn by doing the work themselves and by participating themselves. When a person does a work he gains practical knowledge and experiences the difficulties. Extension worker is able to understand the problems and provide proper guidance to the farmers and thus, they are able to receive proper information.

6. **Principle of trained specialists**–It is very difficult that extension personnel should be knowledgeable about all problems. Therefore, it is necessary that specialists should impart training to the farmers from time to time.

7. **Adaptability principles in use of extension teaching methods**–Extension worker should have knowledge of extension methods so that they can select proper method according to the condition. Teaching methods should be flexible so that they can be properly applied on people according to then age groups, educational background, economic standard and gender. In extension education two or more methods should be applied according to principle of adaptability.

8. **Principle of leadership**–The participation or inclusion of local leaders in extension programmes is the only criteria for assessing the success or failure of any extension work. Local leader is the best medium for dissemination of new ideas in rural area. According to Ensminger. "No Extension worker can be successful till he receives the cooperation of local leader of the village." It is very necessary for extension worker to select the proper leader. By selecting a proper leader, extension worker's half work is considered to be done as such, proper precautions should be undertaken to choose the leader.

9. **Principle of whole family**–In Extension Education, principle of whole family is of utmost importance. Family is a part of the community, so there should be development of each member of the family and extension education should be for each and every member of the family, i.e., boys, girls, male and female, then only success can be achieved.

10. **Principle of satisfaction**–If people are not interested in extension work then there is no possibility that extension work can be carried on for a long time. In a democratic structure/set-up people cannot be run in a mechanized way. They should derive full satisfaction from extension work. Extension worker should give priority to those work in which there is scope for immediate benefits. Primary satisfaction is very helpful for the future of extension work.

11. **Principle of evaluation**–It is necessary to evaluate the extension work after a certain period so that merits and demerits of extension work can come to light and necessary changes be brought about. Evaluation generates confidence in people.

12. **Principle of neutrality**–Extension worker should never take interest in local politics. If he will not behave in this manner then lots of difficulties in extension work will arise. Therefore, remaining neutral is more beneficial. Extension worker should never express his special affection or hatred towards any person.

13. **Principle of encouragement**–In extension work, principles of encouragement have great importance. Under pressure no work can be done in extension programme, for this active workers in this field should be encouraged so that they participate and enthusiastically remain active.

Importance of Extension Education: Extension Education is primarily for the rural development. Its main objective is to bring necessary change in the beliefs or views of people. Extension education is an educational process by which capabilities among people are developed to understand their problems and resources. It is utilized to make scientific methods available to the rural people, so that they can raise their agricultural production and their standard of living. In India, the aim of extension education is community development, which is possible only by bringing change in the behaviour complex of rural people. Extension education plays major role in bringing desirable change in rural people.

In rural development or community development through extension education, the following functions should be performed:

1. **Change in knowledge of the people–**It implies bringing change in a person's present knowledge by providing information about latest developmental works, like, providing knowledge about new species. If a person is not aware of development works then information about it is imparted through training programmes.

2. **Change in attitude of the people–**The positive change in attitude of people towards the information given to them about latest developmental works should be brought about if a person believes that it is right for him then he will surely adopt it. In the same way there should be attitudinal change in the extension worker so that he can be able to increase the speed of development in the area by spreading new technique.

3. **Change in skills of the people–** Whatever work a person does, he should do so by adopting new technologies, which minimise his time, money and hardship and increases production and his income in proportionate way. Therefore, change in skills of people should be brought about. In similar way, there should be change in skill of extension personnel so that he could practically exhibit the new technique in the area and people can easily understand.

4. **Change in understanding of the people–**It is necessary to bring change in understanding of the people. He should believe that new/latest techniques, which are told to him, would be beneficial for him. Extension personnel should also understand that by imparting information about new techniques the people of the area will be benefited.

5. **Change in goals of the people**–If a person's aim is to grow only two crops in the field then he should be counselled that he can grow more than two crops in his fields and in place of food crops he should grow cash crops in some areas. This way he will have more profit and can aim for high crop production. Similarly, extension personnel should aim to spread this new technique in his area at certain period.

6. **Change in action of the people**–Extension worker should bring change in action of the people. People should be told to immediately make plans about the implementation of new techniques, which have been brought to their knowledge. In exactly the same way, extension personnel should plan the extension work immediately.

7. **Change in confidence of the people**–There should be change in confidence of the people that by adopting new techniques there will be definite increase in their net income. Similarly extension worker should have confidence that his extension work will definitely bring welfare of the society.

8. **To develop the leadership**–Extension worker should develop permanent leadership in village, who can adopt new technology and help in spreading the new technology.

9. **Development of rural groups and rural institutions**–In rural areas, collective change occurs very enthusiastically, therefore, it is necessary to develop rural groups in villages. By proper development of gram panchayat, co-operative institutions and other institutions, greater cooperation is achieved in rural development, therefore, they should be developed.

Qualities and Role of Extension Worker: Extension worker is like a teacher, philosopher, leader, guide and colleague for the community and on the basis of his special qualities he is able to carry on developmental programme successfully. It is undoubtedly true to say that the success and failure of development programmes depend upon the qualities of extension worker. Now we will do realistic study of those necessary qualities and capabilities of extension worker. By

extension worker we mean a man who is the last chain of extension organization, who while living in the midst of the community, propagates his programmes. Qualities of Extension Worker are:

1. **Sound knowledge of subject**–The work of extension worker is to introduce villagers to new ideas and to bring change in their behaviour. But, he cannot be successful in this work unless he himself is aware of new technologies. Only after having full and complete knowledge about latest techniques/technologies, he will be able to impress the people.

2. **Burning desire for new knowledge**–Extension worker should have burning desire to know his subject and problems and requirements of people, so that the research work of research institutions can be brought to the people and problem of the people could be brought to the research institutions for analysis and inspection and again their results can be brought to the people. It is correct to say that the extension worker should play the role of teacher as well as that of a student.

3. **Explicitness**–Extension worker lives alone in the village and he has to provide appropriate solution to the problems of the people. Therefore extension worker should be capable of taking prompt action and providing explicit solution. Opposite trait in extension worker will create disbelief and disappointment among people.

4. **Tactful**–Extension worker should be tactful and try to derive relevant benefits from the experiences, problems and resources of the people in order to gain their trust and become reliable person for them.

5. **Foresightedness**–Extension work is a continuous process, therefore, extension worker should have foresightedness to know which type of work will bring, what kind of result and what will be its impact on the people. He should also know which work should be given priority in order to achieve long lasting benefit.

6. **Sympathetic attitude**–Sympathetic attitude is the best quality in extension worker. If he is capable of listening to the problems of people sympathetically and able to solve them then undoubtedly people will respect and honour him. This is the first and last step for the success of the programme

7. **Service attitude**–The mentality of extension worker should be filled with servitude. As far as possible at every stage, he should perform his duties and should not exert his rights. Due to this mental attitude, other people will also take interest in social welfare programme and new leadership will emerge and help voluntary in extension work.

8. **Attractive personality**–Extension worker's personality should be able to attract people easily. Therefore, the behaviour of extension worker should be lively, polite and cowdeous so that people of all strata can come in contact with him without hesitation.

9. **Faith in programme**–Strong faith enhances personality and increases respect among people, Due to strong faith in programme, people get self-motivation to participate in programme and extension work achieve success.

10. **Enthusiasm**–An attempt without enthusiasm is bound to fail. Therefore, extension worker's heart should be filled with enthusiasm, zeal and affection. A body without enthusiasm is like a cadaver. Person who himself is not motivated, self-confident and aware, cannot convince others to follow his path. Enthusiasm is sure way for success. It enhances personality of extension worker. It is also relevant here to mention that over-enthusiasm is harmful.

11. **Courage**–Extension worker should be courageous enough to tackle difficult conditions and situations.

12. **Tolerance**–The extension worker should develop his personality in such a way as not get easily hurt by opposition. There is no impact of anger on tolerant people.
13. **Honesty**– Wherever there is a question of behaviour and policy, people should practise honesty and truthfulness. Extension work is a practical work in which definite policy is adopted through which new motivation emerge in the community.
14. **Simple living**–Behaviour of an extension worker should be simple without any pomp and show. It means that extension worker's standard of living and his behaviour should be like an educated villager.
15. **Friendly nature**–Behaviour of extension worker should be amicable so that he can make friends easily. Feeling of friendship among people enhances cooperation and extension work.
16. **Firm determination**–Extension worker should have firm determination so that he can do his work in spite of all hurdles, which come in his way. If he lacks in determination then he will be unable to generate faith among people.
17. **Religious outlook**–Extension worker should be liberal and religious minded so that he can easily achieve respect in that particular society in which he has to work. But extension worker should not be conservative and fanatic in his religious outlook.
18. **Organizing capacity**–The success of extension work depends on two main factors: (i) Development of power of motivation. (ii) Capability to organize people. Power of motivation develops naturally but capability to organise people is very important for doing any kind of work. The proper utilization of money, labour and other resources of people is possible only when all these different factors are properly organized.
19. **Dignity of labour**–Extension worker should not hesitate to do social work and labour work of any kind. This way he himself will do less work but the environment created is essential for the progress of development work in which development programme will progress rapidly. In this way dignity of labour will be enhanced among people.
20. **Knowledge of rural social values**–In order to convince a person it is necessary to respect that person's social values. If the people of a particular area believe in Ramayana and Gita then extension worker of that area should start new programmes along with Akhand Ramayana and recitation of Geeta. This will develop strong respect for the work and people will easily adopt the extension work.

Role of Extension Worker: The role of extension worker while living among rural people is to bring necessary change in individual and collective behaviour and motivating them. For this, extension worker is required to have knowledge about psychological factors, extension related training and technological knowledge. In performing his duties an extension worker has to perform work enumerated:
1. **To create motivation and feeling**–By motivating rural people for the development of programmes so that they themselves may become anxious to improve their standard of living and make new programmes and implement them for their upliftment.
2. **Knowledge of local felt need**–Development programme should be based upon local felt needs. For this extension worker should be aware of requirements and problems of local people.
3. **Precedence of instant needs**–In preparing programme, precedence should be given to those work which fulfil instant requirement of people.
4. **To create self-belief in rural people**–Till now rural people have no faith upon their own power. They still depend on government assistance for the development work. So, it is

important to make them understand or convince them that they can do most of the work through mutual cooperation.

5.   **Emphasis on self-dependence**–Our villages were self-dependent before British rule. Their needs like food, clothing and housing, were fulfilled in villages itself, but now they have to go outside to fulfil their basic needs and still they are unable to earn enough for themselves. Therefore, it is necessary to bring change in this situation and to teach lesson of self-independence to the villagers.

6.   **To develop the close relations between research centre and agricultural farm**– A close coordination is to be developed between research centre and agricultural farm. So that scientific information can be given to the farmers and their problems can be addressed to the scientific institution for solution.

7.   **Full use of present local resources**–In order to enhance the   extension work and rural industries like agriculture and cottage industries, it is necessary to efficiently utilities the available local resources so that people can become self-dependent.

8.   **Plan for all-round development**–Extension worker should organise social, economic and educational development programmes for all round development of the society.

9.   **Reconstruction of village**–Work should be done   for the development of education, health, transportation, electricity, water etc in villages, so as to encourage educated people to stay in villages. Arrangement should be made for providing security to the people in villages.

10. **Change in social attitude**–The rural environment in India is filled with jealousy, hatred, ill felling and conflicts. Selfishness is increasing day by day and it is harmful for the society and the country. "Extension worker should try to bring change in this mental attitude of people so that they can sacrifice their selfishness for the welfare of the society and country and may become partners in the reconstruction of the country.

Important Concepts of Extension Education: "A concept is an abstraction from observed events or a short hand representation of variety of facts." The purpose of concept is to simplify thinking by sub summing a number of events under general one heading. "Concept is an idea, general notion or way in which one can see a thing in his mind. In more general, concept means assigning meaning to the words." Some important concepts of extension education are presented below:

1.   **Extension -** The word extension is mostly used for Extension Education.

2.   **The basic concept of Extension is that it is Education -** Means production of desirable change in human behaviour, which includes knowledge, attitude and skill.

3.   **Extension Work -** It means the whole structure of Extension work. It includes the process of Extension Education i.e. the process of teaching and learning. Besides the process, in extension work are included organization, administration, supervision, finances as well as the programs for the overall development.

4.   **Extension Service -** It means an organization and/or a programme for the welfare and development, which employs the extension educational process for the implementation of programme. It is thus same as that of extension work except that in extension service there has been greater emphasis on service.

5.   **Extension Job -** The job of extension in agriculture and home science is to assist people engaged in farming and home-making to utilize their own resources more effectively and

those that are available to them, in solving the current problems and in meeting the changing economic and social conditions.

6. **Extension Educational Process -** The extension process is working with the people with their immediate needs and interests, which can make available additional occupation, make improvement in the socio-economic status, better home-management and expedite welfare of the rural people.

7. **Methods of Education -** Education must be conceived as a life long learning process. Human beings learn mainly by three methods; (i) Through informal education; (ii) formal education; and (iii) non-formal education.

    (i) **Informal Education -** It is the never-ending process by which an individual learns through daily experiences and exposure to environment at home - at work, from friends, radio, television, papers and books etc.

    (ii) **Formal Education** - It is institutionalised, chronologically graded and well-structured system of education, which starts from schooling to the higher education.

    (iii) **Non-Formal Education** - It has been a well organized, systematic educational activity that is carried on outside formal educational system in order to provide certain selected type of learning to the selected group of individuals which include adults, young as well as the children. Included in the non-formal education are subjects on the various aspects of agriculture and related fields, like training programs for farmers, farmwomen and rural youth. Training has been provided on skill development of various aspects, which may help in generation of employment. Farmwomen clubs, self help groups, Home Science activities such as health, nutrition, childcare, sanitation and fruit and vegetable preservation etc.

8. **Technology assessment** for sustainable agriculture and rural development is defined here as a comprehensive approach to examine the actual or potential impact of technology applications on certain sustainability issues and second order consequences and to facilitate the development and use of technological interventions according to location-specific constraints and objectives.

9. **Technology transfer** was taken to mean a system under which various inter-related components of technology, namely, "hardware" (materials such as a variety), "software" (technique, know-how, information), humanware (human ability), "orgaware" (organizational, management aspects) and the final product (including marketing) are rendered accessible to the end-users (farmers).

10. **Appropriate technology:** Appropriate technology refers to a technology package, which must be technically feasible, economically viable, socially acceptable, environment-friendly, consistent with household endowments, and relevant to the needs of farmers. Technologies are subject to adjustment, change and evolution.

11. **Sustainability:** The underlying definition is the one adopted by the FAO in 1988, sustainable development is the management and conservation of the natural resource base, and the orientation of technological and institutional change in such a manner as to ensure the attainment and continued satisfaction of human needs for present and future generations. Such sustainable development (in the agriculture, forestry, animal and fisheries sectors) conserve land, water, plant and animal genetic resources, is environmentally non-degrading, technically appropriate, economically viable and socially acceptable.

History of Extension Work in India: About 80% population of the world is living in the economically undeveloped area. This area is spread to south-east Asia, Africa and the middle-east. These countries are those, which remained under subjugation till centuries, and their administration system was only for exploitation. Therefore, many evils such as illiteracy, superstitions, unhealthy practices etc. took roots in these countries. After Second World War these countries became independent rapidly. Then, it was thought that how all these problems could be settled properly and so, many development programmes were reinvigorated. It is wrong to declare that there was nothing done during slavery period. Howsoever, those works, which were executed at that time, were very few in number according to the needs. Looking at a vast country like India, during British rule some selected social workers had started some programmes of rural development. In this chapter we shall study the programmes of rural development. For the clarity in study, we can divide these Development Programmes in two parts: Pre-Independence Programmes, and Post-Independence Programmes

Pre-Independence Programmes

In the 19th century, many efforts were held to end the difficulty of rural loaning system. The tradition of 'Takabi' loan system' (advance of money given to cultivators for digging wells, bringing improved seeds etc.) which was started from the time of Mughal emperors, continued during the British period and was further strengthened. But, above all it was too little to improve the conditions of rural people.

Similarly in the 19th century some efforts were undertaken by establishing the rural banks by state governments, Justice Rana De and William Bad Khoran. The churchman Colson who was associated with this planning, experienced that not only deposited capital is needed, but also the feeling of frugality and "self help" should be created in the minds of people. Unfortunately, this thinking could not be continued. In 1947 before achieving freedom in India, many programmes were started which are mainly as follows:

1. Ideal Village Project: In 1903, Sir Daniel Hamilton began a project of rural development on the basis of cooperation and started this project in "Sundaram Village" near Madras (Chennai). In 1910 under this programme, Co-operative Deposit Institute was established. Along with the savings, the programmes of health, literacy and small industry were started. In this planning, the emphasis was on specialized training for unemployed young farmers to make them self-dependent. This project continued till 15-16 years and after some time it disappeared.

2. Shriniketan Project: Shriniketan is situated about 100 km. away from Calcutta (Kolkata) in West-Bengal State. This area was backward socially, economically and politically. Shri Ravindra Nath Tagore began this project of village development in this area with the help of sociologist Shri L.M. Hurst. Shri Tagore thought that if some villages were developed, the other villages will get inspiration and the programme of village development will spread all over the country and thus the whole country would be developed. Shriniketan Village Welfare Institute was established in 1920 whose main objectives were the following:

    (1) To increase the knowledge of rural people.
    (2) To help the rural people in establishing cottage industry.
    (3) To inspire the people to follow new technology.
    (4) Development of dairy farming.
    (5) To create the feeling of co-operation.
    (6) To arrange the facility of health and education.
    (7) To create the feeling of rural leadership.

This Project, in the beginning, was started only in 8 villages but after some time this project was extended to 15 villages. Shri Tagore was the landlord of all these villages. Being centralized over Shri Tagore this Project could not survive after the death of Shri Tagore, and came to an end after his death.

3. Gurgaon Project: In Gurgaon district, this programme of village development was the first one to be run by the State. It was started by the Mr. F.L. Brayne. In 1920, Mr. Brayne had been appointed on the post of Deputy Commissioner in Gurgaon district and he began this project of rural upliftment in his district, which became famous as "Gurgaon Project". The main objectives of this project were: (1) To increase crop production, (2) to control extra expenditure, (3) to improve the health, (4) to develop the feeling of women-education, and (5) home development work.

Although this project got some success yet this scheme also could not survive more because this project was also based upon the sentiments of F.L. Brayne and when he was transferred, gradually this programme also stopped.

4. Seva Gram: Mahatma Gandhiji was a great social worker. He knew very well that as long as Indian people are suppressed ,their society and their nation cannot progress. For ending this suppression, he began this welfare project "SEVA GRAM", establishing his Ashram in Vardha, in 1920. The main objective of this programme was to prevent the economic and social suppression of the people and to create the feeling of patriotism among them and they must think that this is their own country. For fulfilling this objective, Gandhiji made a programme, which became famous as "Gandhian Constructive Programme." The main objectives of this project were: (1) to use khadi clothes, (2) to introduce Health Programme, (3) the programme of sanitation in the village, (4) the programme of women welfare, (5) the programme of economic help, (6) to uplift the backward classes, (7) primary and adult educational programmes, (8) to improve the conditions of poor people, (9) programme of social harmony, and (10) to popularise the mother tongue and other national dialects.

For making his programme successful and effective, Gandhiji had established All India Village Industry Association, All India Spinners Association, Hindustani Education Association and Kasturba Gandhi Association etc. Gandhiji's constructive programme was not followed completely by majority because those things, which were made by machines, were more beautiful and low-priced, and the common people could not be impressed. The single cause of failure of Gandhiji's programme was industrialization in the country.

5. Marthendom Project: This project of rural development was initiated in the village Marthendom near Trivenduram of Kerala State by Young Men Christian Association (Y.M.C.A) and Christian Church Association under the direction of Dr. Spencer Hatch in 1928. This village was undeveloped economically and the economic condition of the native majority was poor. Here, people used to cultivate only paddy and coconut on some places. For exploiting this weakness, it was thought that some developmental work should be done, so that the Christian faith could spread. Consequently Dr. Hatch made agreement with Y.M.C.A. and the Church for his work and initiated this project in neighbouring village Marthendom.

The objectives of this project were also made on the basis as to how the public of this area could become Christian. The main objectives of this project were:

1. **Spiritual Development-**To develop the sentiments of people or to create the feeling of progress in their minds, because a work cannot be successful until the people are confident that the work will definitely be successful. Dr. Hatch had the confidence that if people are inspired for progress, then people can be motivated for these development works.

2. **Mental Development-**To just awakens the feeling is not enough? Mental development is also necessary, until the thinking, understanding and the capacity of taking decision is not developed, the work cannot be completed. Thus mental development of a man is also necessary.

3. **Physical Development-**The individual, who is not physically strong, cannot work well, whether he is developed mentally and spiritually. So, the physical development of a man is also necessary.

4. **Social Development-**If the person's social environment is adverse, he will be afraid to do any new work. Because all the activities of a person is determined by the society and so the development of their society is essential. Thus, the society in which a person lives, its development is also necessary.

5. **Economic Development-**Even if the man is spiritually, mentally, physically and socially developed, he will not work if he has no hope of economic advantage. So, the fifth object of this project is to give economic advantage to the people. The main programme planning of this project were the following:

    (1) Before launching the programme, surveys are made to know the needs of that area and on the basis of the surveys the programmes were introduced according to the needs of the people.
    (2) The rural drama, rural exhibition, inter-rural competition, demonstration were also organized to affect the people and to attract the people.
    (3) Religious programmes were also organized for developing the religious feelings.
    (4) All-round development of rural life and each individual's progress were the subjects to importance in the programmes *i.e..* Farming, rural industry, cooperation and to develop 'Panchayat' etc.
    (5) For bringing economic development among the rural people, many programmes as bee keeping, soap making and the educational programmes etc. were organized.

This programme of Dr. Hetch remained for a long period because he had trained workers and the local people were inspired to work themselves .As such this project was very successful in this area. But the whole programme was centred on a person and after the death of Dr. Hetch, there was a conflict on the question of leadership between Y.M.C.A. and Church Association and due to no economic advantage to the non-paid workers, this programme could not survive.

6. Baroda Village Reconstruction Project: Shree B.T. Krishnamachari in Baroda in the Gujarat State initiated this Project in 1932. This Project Continued for a long period.

Objectives: (1) To improve the life style of rural people rapidly. (2) To spread education and industrialization. (3) To develop the necessary factors for the progress of agriculture.

Scope: (1) This Project was started in the district of Navsari in the Gujarat State. (2) Many programmes such as gardening, poultry-farming, beekeeping. spinning and weaving were organized. (3) Re-stabilization of 'Panchayats' and other programmes of village progress were organized. (4) The adult education had been extended.

Working System: (1) By personal education and contact by the village guides. (2)To use the school teacher of village in the extension of programme. (3) To use the traditional means of extension.

7. Grow more Food Campaign: This campaign, started in 1942, was continued after getting the independence. The main object of this campaign was to fulfil the need of food, which had been created due to the Second World War. This campaign was the first one to be organized on a national level. In this campaign, the new seeds and chemical fertilizers were distributed among the farmers. Agricultural departments of state governments organized this campaign.

Achievements: (1) After spending a lot of money, some problems were tackled in the end. (2) The crop production increased due to new seeds and chemical fertilizers provided to the farmers. (3) From this campaign, the production of cotton and jute increased appropriately.

Limitation: (1)Its work field was limited. (2)The campaign was deemed to be temporary hence the work was done. (3) The economic help, the distribution of good seeds and fertilizers could be available only on some places. Most of the agricultural fields were not benefited from these facilities and could not get the desirable results.

8. Indian Village Service (IVS) : In 1945, under the guidance of Dr. W.H. Wisher this service began in the village Agasoli, District Aligarh in U.P. But, after the partition of the country, the village volunteer M.V. Siddiqi Khan went to Pakistan and this centre was closed. If we look at the background of the establishment of I.V.S. briefly, it becomes clear that the schedule of this programme of I.V.S. was decided in 1908 when an Indian businessman B.N. Gupta was in America. Shree Gupta observed that churches in America, work for the welfare of villages and consider it as a duty to make the rural life prosperous. He thought that this church system can work in India too and the country could develop amazingly. He discussed it with American church authorities but they did not respond to him. But in 1915 Dr. William H. Wisher came to Nainee (Allahabad) for working in the church and showed interest for the rural development. Inspired by his interest D.I.L. Doze who had been foreign minister of Privaterian Church of America, agreed on the help of ten thousand dollar every year for the rural development, he also requested that an organization should be formulated with the co-operation of Indians and as well as the Christians of foreign countries who will do these development works in India. Gradually, other organizations also assured co-operation. Then Dr. Wisher made a committee of Indian and the Christians of foreign countries and called a meeting in I.T.C. College, Lucknow in October 1945. This committee decided to introduce the I.V.S. Works in India in the supervision of Dr. Wisher and therefore Dr. Wisher was declared the supervisor.

This work was initially started at Agasolli village (District Aligarh in the state of U.P.), but here the work could not be completed because the village volunteer M.V. Siddiqui migrated to Pakistan. After this, the second centre was started at Mahrara village (District Etah in the state of U.P.) in 1968 .In the thirty villages near Mahrara, this work was started under the guidance of 7 villagers.

Objectives: (1)To educate the rural people in such a manner that these people could self-diagnose their problems. (2) To inspire people to help in the development works. (3) To provide a good chance to the citizens and other individuals to co-operate in the rural development work. (4) To guide them for making other planning of development successful.

Programmes: (1) Health Programme (2) Home Science Programme (3) Agricultural Development Programme (4) The programmes of Entertainment (5) The programme of Education (6) The development of Cottage Industry (7) The Programme of Family planning

Conclusion: This programme gained limited success because:
    (1) the programme was guided by foreigners. They did not know the traditions of Indians. So, they organized the programmes in contrary to Indian traditions, therefore they could not achieve success.
    (2) this programme was run by the Christians, the people of high caste did not help them in this work.
    (3) the area was undeveloped and the people were uneducated so the people did not take interest in the programme.

9. Firka Vikas Yojana: The government of Madras (now Tamil Nadu) decided to make efforts for the development of villages at Firka level. The first programme began in 1946. Among Pre-Independence project, this was the biggest project.

Objectives: (1)All-round development of rural people. (2)To develop the means of drinking water and communication. (3) To develop the committees of panchayat and co-operatives. (4)To develop animal husbandry, farming and irrigation facilities. (5) To introduce khadi and cottage industry.

Scope: (1) To select Firkas (villages) considering the possibilities for development in the production of handloom cloth and other cottage industries and alleviating backwardness. (2) This work was started from 34 to 84 Firkas till 1950.

Post-Independence Programme

1. Etawah Pilot Project: This is such an effective project that after witnessing its results, the way was cleared for initiating the Community Development Project. Therefore this was called the Pilot Project. In 1947, after Independence, the Government of India prioritised on rural development and how this work should be managed. For this the guidance of an experienced person was needed. The Government of India urged the U.S. government to send Mr. Albert Mayor to India because he had enough experience of rural development programme and was a Rural Sociologist. He also had the experience of organizing different programmes of village upliftment. Mr. Mayor, after arriving here, surveyed throughout India and on the basis of his experience, he concluded that it is a vast country enriched with different resources and seasons, therefore such a field should be selected that can represent most parts of the country. So, Mr. Mayor made his headquarters at Maheva (District Etawah in U.P.), selected 64 villages of neighbouring area and there, in 1948, initiated the work of development guided by the following objectives. Later this project guided 'Community Development Project' in India; it was called "Etawah Pilot Project" because literally it is the pilot who shows the path.

Objectives: (1) Mental development of the villagers. (2)To awaken the desire of rural people and to make them laborious. (3) The development of agriculture and animal husbandry. (4) The development of Panchayat. (5) To develop the feeling of self-confidence, co-operation and mass participation. (6) To seek the possibility of transferring this project elsewhere in the country.

Programme: (1)To find out the desired needs of the people.(2)To demonstrate and evaluate the programmes.(3)To appoint the village level workers (V.L.W.) for working as a link between the people and the government. (4) In agricultural economics, to develop the cottage industry as the co-operative business for development of the agriculture. (5) To open the stocks of seeds, fertilizers and the instruments of agriculture. (6) To introduce the people to the international world through news bulletins and newspapers. (7) To start the health programme for the rural people. (8) New schools of primary education and adult education for the extension of education were opened. (9)To solve the agricultural problems for the development of agriculture, i.e., improvement of sterile land, to prevent the soil erosion, reconstruction of tube-wells, the arrangements of demonstrations for teaching them about improved agricultural methods, the construction of roads, the distribution of seeds and fertilizers and development of horticulture etc. programmes of agricultural development were started.

Conclusion: From this Pilot Project, the Government of India achieved encouraging results. Inspired by the success of this project, some Projects were introduced in Gorakhapur, Faizabad, etc. Government of India later on introduced a new programme of "Community Development" in 1952.

2. Nilokheri Project: In 1948, Shree S.K.Dey prepared this project for the purpose of providing residence for 700 immigrants from Pakistan. He began this project using 100 acre of swampy land spreading in the midst of Karnal and Kurukshetra. The name of this project was "Majdoor Manzil". The director of this project was Shree S.K. Dey. He went on to become the Union Minister of Community Development in 1965.

Objectives: (1)Self-dependence in all the fields of life. (2) To arrange for professional training and provide occupation for the people on the basis of their experience. (3) To   eliminate   the middle-man system.

Scope: (1) The work was done in 100 villages near Nilokheri. (2) To establish the village level workers, social development officer and block development officer. (3) The development and popularisation of co-operative Institutions. (4) The facility for entertainment. (5) The effort to establish a socialist society.

3. Community Development Project (CDP): India was a prosperous country before the British Rule. It was known as a golden bird throughout the world. Even the historians state that there were the rivers of milk flowing in this country. At that time the main reason for the prosperity was the rural based economy. All the villages were self-sufficient. In villages there were cottage industries, small industries, animals were domesticated and agriculture was done. The basic needs of that area were fulfilled by these occupations. All the villagers were self-sufficient and due to the joint family system the members of family shared their work, so the economic condition of the family was good and strong. When the British understood this cause of prosperity of rural people they concluded that without uprooting the rural economy, they cannot establish English trade and industry and they cannot rule over this country. So, they uprooted many Indian rural industries and introduced industrialization and use of machines in the country. With the introduction of technology in the country, the rural individual based economy was destroyed. The British government seized over the small industries i.e. cotton, soap, pin and manure processing. So as the social and economic system of the country was ruined, the joint family began to separate. This tragic condition continued till about 200-250 years in the country.

In 1857, the freedom fighters initiated a long struggle against the rulers. In the contemporary period the leaders and social reformers urged the people to use things made in our country but their influence on the people was not powerful enough. Lokmanya, Bal Gangadhar Tilak, Mahatma Gandhi, Rabindra Nath Tagore, and Dr. Keshava Rai Hedgewar etc. great personalities began this Swadeshi Movement and thus the society became enlightened.

In spite of suppressive nature of the English people, many social workers introduced various movements for integrated rural development. Its main objective was that all the rural people of the village co-operate for the rural development programme. The feeling of Community must be developed among the rural people. In the chain of these programmes there were "Seva Gram" a project of Mahatma Gandhi in 1920, "Shree Niketan Project" by Rabindra Nath Tagore in 1920, "Marthandam Project" of Dr. Spencer Hatch in 1928, "Baroda Village Reconstruction Project" of Dr. B.T. Krishnamachari in 1932, Indian Village Services of Dr. W.H. Wisher in 1945, and Firka Development Project of the government of Madras in 1946 etc. projects. All these social worker's basic objectives were to develop the integrated village.

After attaining independence, the Government of India has undertaken many efforts to make the above concept more effective and among them Etawah Pilot project proved very effective. From this Project the Government of India achieved many encouraging results. After getting the results from the projects, the government introduced a new scheme on 2nd October in 1952 and this project was called "Community Development Project". According to the scientists there should be established such an organization in the country whose main objective should be the all round development of the villagers and for achieving this aim, all the country men should co-operate. In the rural field, the resources of human development should be developed. In this direction, everyone knew about the successful results of Mahatma Gandhi's project, Ravindra Nath Tagore's project and Etawah Pilot Project and so considering all these points, this project was introduced. In this context, Pt. Jawahar Lal Nehru had stated in the fourth All India Conference of Development Commissioners that *"These community schemes are not a replica or a copy of something from abroad, although we have learnt much from other countries. They are essentially an Indian growth suited to India's conditions."* The main philosophy of this project was Co-operation and Self Help. This concept will make the country a new India. For the reconstruction of India, the Planning Commission, considering the basic concepts for the community development, stated- (1) Community Development is a method, (2) National Extension Service is an agency, and (3) The goal is to change the social and economic condition of village. Thus community development project is an agency to change the social and economic conditions of the villages.

Basic Objectives: (i)The all-round development of the rural community. (ii)To develop the feeling of communitarian life style among the rural people. (iii)To develop the feeling of responsibility, to create confidence, to create inspiration for working by self decision among the rural people and establishing local leadership and institutions that can tackle the problems of that area.

Inspired by the success of Etawah Pilot Project and taking into consideration these basic objects, Planning Commission influenced the Government of India. The Planning Commission took the decision that this project should be introduced in 15 different parts of India with the co-operation of Ford Foundation (America), studied its wide effect and established 4 village level worker

training centre. After this experience, the Central Government started Community Development Project on 2nd October 1952. Three famous American specialists contributed in the formulation of this programme. They were Douglas Ensiminger, who was the chief of Ford Foundation in India, Chester Bowls (the messenger of U.S.A. in India at that time) and world famous sociologist Karl Tailor.

Objectives: (1)To increase the agricultural production. (2) Community and integrated development. (3) The extension of the new scientific knowledge. (4) Development of small and medium irrigation projects. (5) Development of co-operative organizations. (6) Construction of roads. (7) To increase the adult education and primary education. (8) Facility for entertainment. (9) Development and construction of primary health care centre and the public health service.(10)To inspire the youth for the development programme.

To spread the Programmes of Community Development, National Extension Service was organized on 2nd October 1953 and extended to the whole nation by 1963. For limiting the scope of programme, it became necessary that it should be introduced at different stages. Its form at that time was in the following way:

First stage-At this stage, the local people were advised to participate in the Development Programmes. Its duration was decided for 10 years.

Second stage-At this stage, the programmes of Community Development were enlarged and the duration was of one year.

Third stage-At this stage, the Community Development Programme and the Intensive Development programmes were to be introduced. The intensive Development of this stage was of three years and maximum programmes were to be introduced.

Fourth stage-At this stage again, Community Development Programmes were to be enlarged and the programmes and budget of third stage be minimized.

From the above classification of programmes, the administrative difficulties occurred and therefore it was felt that these stage classifications should be deleted. In 1957, under Balwant Rai Mehta's chairmanship a committee was organized. He submitted his report and on its basis in 1958 the Budget Committee classified the programmes in the following way :

1. **Before the expansion-**The survey of field and for the work of agricultural development, expenditure was estimated at about 18 thousand rupees in the duration of 1 year.
2. **First stage-**Working period 5 years, budget Rs. 12 lakh. In this stage the development programmes will be extended.
3. **Second stage-**Working period 5 years, budget Rs. 5 lakh. In this stage, the development programmes will be introduced intensively.
4. **Third stage-**At this stage, the project implement permanently, estimated Rs. 1 lakh per year.

One Community Development Block has the influence over 100 villages, about 400-500 square km. area and population 60-70 thousands. In the beginning of fourth five-year plan there were 5,265 developing blocks. As a result of reorganisation of the states, these numbers were 4,893 in 1971. Among them, there were 492 tribal developing blocks.

Basic Philosophy**:** Basic philosophy of community development programme was in the following way: (1) Individual development. (2) Development of family. (3) Awareness for the

responsibilities and self-motivation among the people. (4) Community development. (5) Development of Cooperativeness among the people. (6) To create the confidence towards science and technology. (7) Development of rural leadership. (8) Development of rural institution. (9) Development of other resources for community development. (10) The social, cultural and economical development of rural society.
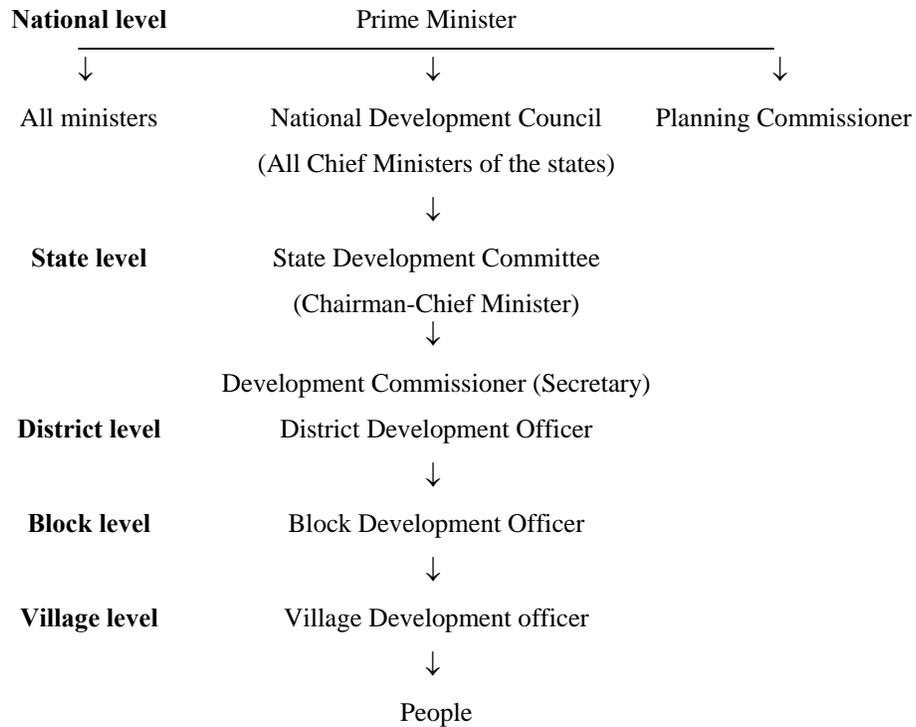
Basic Principles**:** The following principles had been formed to achieve the objectives and basic philosophy of Community Development Project:
(1)   The working plan of the Community Development Programme will be based upon the necessary needs of the community.
(2)   The multipurpose programmes will be established to fulfil the entire and balanced needs of community development.
(3)   To change the attitude of people towards the achievements, in the beginning of the programme.
(4)   In the Community Development Programme, participation of the local people and their leaders should be secured. Inactive local administration should be activated.
(5)   The main objective of every programme should be to recognise the local leadership, encourage and train them.
(6)   In the CDP, the participation of rural youth should be secured.
(7)   To provide the government aid according to the need for making the Community Development Programme effective.
(8)   At national level for the implementation of C.D.P.
    (i)   Adoption of the familiar policies.
    (ii) Arrangement of special administration.
    (iii) The recruitment and training of workers.
    (iv) The cooperation of local and national institutions.
    (v)   The research, experiment and evaluation team should be supplied according to the needs of the organization.
(9)   For the Community Development Programme the cooperation of local, national and international non-government organization should be taken entirely.
(10) It is necessary to develop socio-economic conditions at the local and national level.
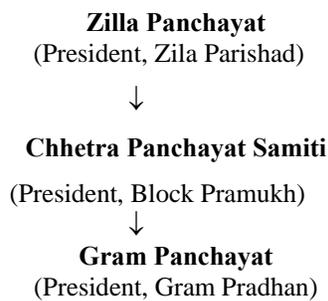
Programme:
    1.   Agriculture and related Area-This includes the programmes of improvement of animal breed, vegetable farming and the arrangement of manure/fertilizers, seed, irrigation and land reformation.
    2.   The Development of Co-operation-To start the new development committee and to reestablish the old committees.
    3.   Employment-To organize the programmes of rural and small cottage industry for this purpose.
    4.   Transport-To develops the means of transportation.
    5.   Education-Programmes of compulsory and free education and the adult education.
    6.   Health-The sanitary programme, to look after the sick people, maternal & childcare
    7.   Training-The arrangement of training for the handicraft workers.
    8.   Society welfare-To introduces the programme of family planning, society welfare and community entertainment.
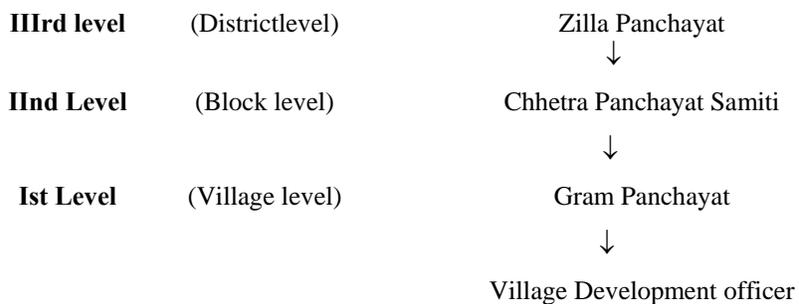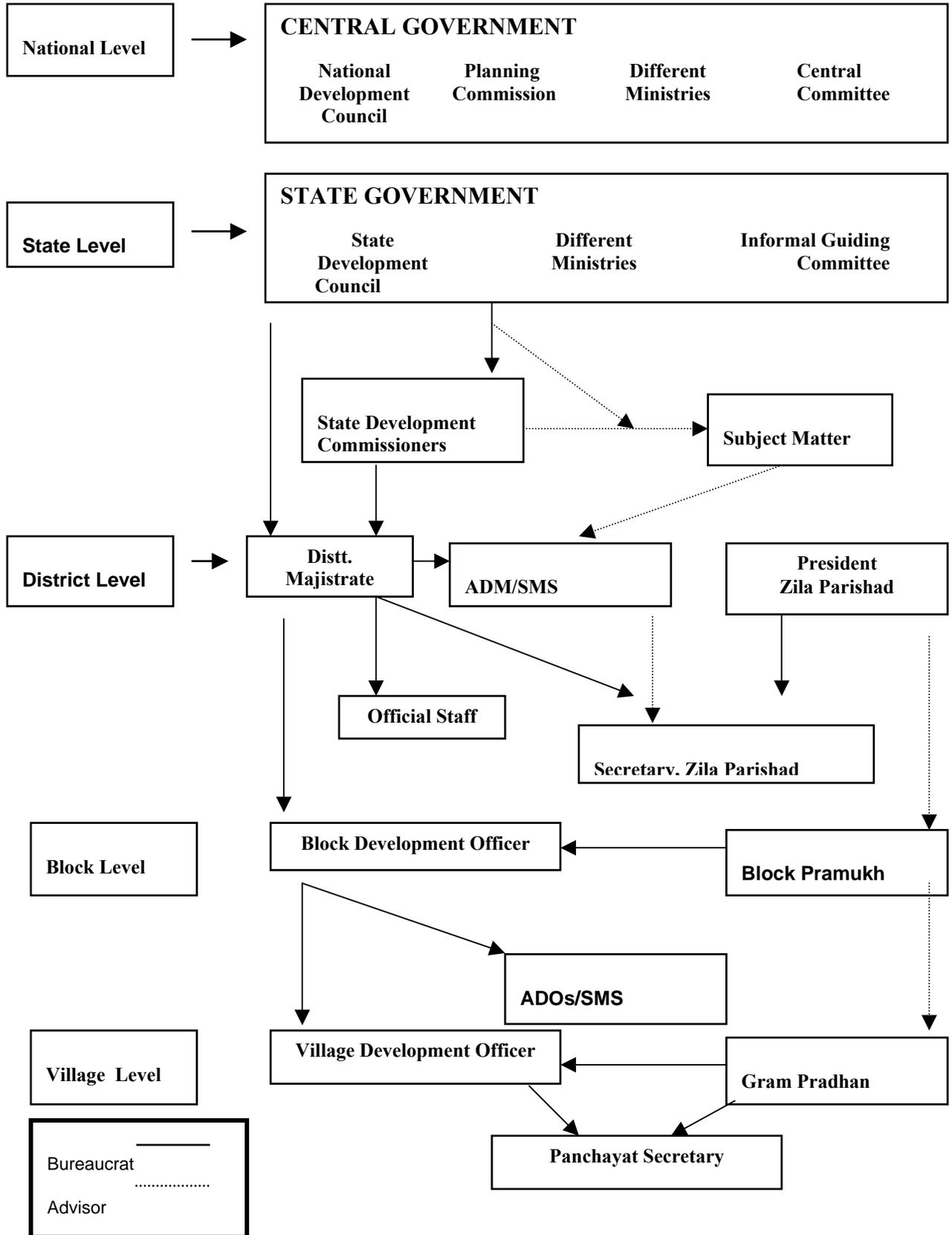
Community Development Administrative Organization

National level	Prime Minister	
↓	↓	↓
All ministers	National Development Council	Planning Commissioner
	(All Chief Ministers of the states)	
	↓	
State level	State Development Committee	
	(Chairman-Chief Minister)	
	↓	
	Development Commissioner (Secretary)	
District level	District Development Officer	
	↓	
Block level	Block Development Officer	
	↓	
Village level	Village Development officer	
	↓	
	People	

Community Development Under Democratic Decentralisation

Zilla Panchayat
(President, Zila Parishad)
↓
Chhetra Panchayat Samiti

(President, Block Pramukh)
↓
Gram Panchayat
(President, Gram Pradhan)

Three Tier Panchayati Raj System

IIIrd level	(Districtlevel)	Zilla Panchayat
		↓
IInd Level	(Block level)	Chhetra Panchayat Samiti
		↓
Ist Level	(Village level)	Gram Panchayat
		↓
		Village Development officer

Community Development Programme

	CENTRAL GOVERNMENT			
National Level →	National Development Council	Planning Commission	Different Ministries	Central Committee

	STATE GOVERNMENT		
State Level →	State Development Council	Different Ministries	Informal Guiding Committee

State Development Commissioners

Subject Matter

District Level →

Distt. Majistrate

ADM/SMS

President Zila Parishad

Official Staff

Secretary. Zila Parishad

Block Level

Block Development Officer

Block Pramukh

ADOs/SMS

Village Level

Village Development Officer

Gram Pradhan

Panchayat Secretary

Bureaucrat
....
Advisor

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Methods of Community Development Programme: In the Community Development Programme, no instruction is given for tackling any problem. One has to locate the sources of the solution for the problem in the same circumstances in which they arise. The community too has to be encouraged to seek out the solution. This is the method of Community Development Project. The Community Development Project includes- to study the problems of rural area, to investigate the resources of the field, to determine the goals, to inspire the rural people for achieving their goal and to fix maximum people's participation. Main methods, which are used for the community development, can be divided into five parts:

i.   Methods of assessing community needs, motives and action-Among the rural community there should be broad discussion on the problems and needs of the community. By mutual discussion and group discussion we can easily recognize the problems and there should be participation of all the people. There should be discussion about the solution of any problem and the fulfillment of the needs. The resources of the village should also be identified by which we fulfil our needs. Through group discussion, the feeling of cooperation should be developed.

ii.   Development of communication means-It is necessary that the rural people are inspired for participating in the work of rural development. Proper means of communication must be developed for inspiring the people. For example, the rural people should be lead to inspect any developed village; there should be arrangement of motivating stories on radio or television. As a result a new inspiration arises in the heart of rural people to work themselves.

iii. Methods of providing community facilities through self help-There is need of different resources for introducing new programmes of rural development. These resources should be identified on the principle of self -help. For example, for the construction of a road 500 labourers are needed, and then it is not mandatory for all the villagers to do *shramdaan*. Those who can donate money must do so and those who can do more work allotted to them, should be paid for their extra work.

iv.   Methods of providing external assistance and developing multipurpose programme-The above three methods are through which the development programmes can progress in the village on the basis of community feeling and self-assistance. Now, here, external assistance is needed to speed up the development work. So it is necessary to invite the subject specialist, the specialist for demonstration, the external experienced men for introducing cultural programme etc. For arranging of subject specialists and demonstration, the agricultural institution and agricultural university etc. are considered necessary as the external assistance.

v.   Methods of coordination of C.D. activities-In this last method, the village level leadership and community development administration are required to co-operate. From this type of co-ordination, the rural development activities pick up the speed, and get inspiration and other development programmes can also be arranged for the upliftment from village level to the block level, state level and national level respectively.

4. National Extension Service (N.E.S.) : In 1953, Grow More Food Committee had submitted its report, which suggested introducing "National Extension Service" in the whole country. This service was initiated on 2nd October 1953, so that within 10 years, the development work of agriculture could properly progress in the entire country. The N.E.S. was different from the C.D.P. in the following ways:

(1) The budget of N.E.S. is less than the budget of Community Development Programme.

(2) The main objective of N.E.S. is the all-round development of the rural community.

(3) The N.E.S. is more permanent than C.D.P.

The work of National Extension Service is continuing even today. Before democratic decentralization in 1953-58, the N.E.S. was working at three stages. These three stages were the following:

(i) Pre-intensive development stage-Duration of this stage was set for three years. In these years efforts were to be made to make the people aware of importance of agriculture and to create interest for the development work so that they may be prepared for the next stage.

(ii) Intensive development stage-In this stage, there were kept sufficient funds for expenditure during three years, so that every block development may be established, construction of the office and residence could be completed and the specialists could be appointed during this period. A large amount of money also had been kept for the demonstration of agriculture and every block development had been aided to bear this facility.

(iii) Post-intensive development stage-In this period, the construction of the offices and residence were completed, after salary of the worker's of Development block and other expenditure had been deducted.

But this system did not prove good and so, after 1958, this three-stage programme was changed to two levels and the period of these levels also was extended from five years to three years.

5. Intensive Agriculture Development Programme (IADP): In 1959-60 Ford Foundation's Agriculture Food Production Committee had presented some firm suggestions to the government pointing out the laxity of agriculture production programmes in the report 'India's Food Crisis and Steps to Meet It". In this report arguing on the topic of food production there was the main suggestion of community efforts by the intensive programme on the crops of food grain in selected areas. For the intensive development of agriculture there were started many programmes, i.e. I.A.D.P., I.A.A.P.

6. Intensive Agriculture District Programme: According to the Intensive Agriculture Development Programme, it was emphasized that the agriculture production programme should be introduced without delay on the selected crops in selected areas. On this basis, the Central Government introduced Intensive Agriculture District Programme in 7 districts in various states of the country in 1960-61. These districts were Tanjore (Madras, now Tamil Nadu), West Godawari (Andhra Pradesh), Sambhalpur (Orissa), Raipur (M.P.), Ludhiana (Panjab), Aligarh (U.P.),and Pali (Rajasthan).

Through this programme, the possibility of production was developed, because the programme was given high priority, progressive fields were selected, reliability of scientific agriculture technology was examined and the utility to introduce it was understood The fertilizers, crop protection, improved seeds, adoption of improved farming practices, agriculture and work of marketing was given to private sectors. But, there were some such harmful factors due to which the progress of programme could not advance to the desirable point. There were many reasons for this failure, the most prominent being the rapidly increasing population of the country, detrimental water policy, lack of money, unsatisfactory administration, slow development of agriculture technology and illegal or unfair distribution of land. These obstacles have been removed by the efforts of new agriculture policy and a new direction was given to agricultural development.

7. Intensive Agriculture Area Programme (IAAP): Encouraged by the success of Intensive Agriculture District Programme, the Centre Government introduced Intensive Agriculture Area Programme in 114 districts of country in 1964-65. Considering the distribution area of crops, those selected areas and crops were selected, which involved a greater possibility of development than others. Similarly, the administrative system was encouraged to protect and to grow the selected crops on block, district and state level. Thus it is called "Intensive Agriculture Area Programme".

8. High Yielding Variety Programme (HYVP): In India, this programme has been initiated in 1963, when the Director, International Maize and Wheat Improvement Centre, Mexico Dr. N.E. Borlog visited the fields of wheat in India and sent the 4 types of dwarf seeds of wheat for testing These seeds were tested in Delhi, Ludhiana, Kanpur, Pant Nagar, Bhuvali and Wilington. Through these testing 4 metric tons per hectare crops was produced, while, in comparison the production capability from Indian varieties were not more than 2.5 Metric tones per hectare. In 1965, on the basis of the results of testing, Larmarohi and Sonalika varieties were distributed to the farmers for cultivation and were also given for developing crops production technology and extension methods.

In 1966, the Government of India imported 1000-ton seeds of Larmarohi and other dwarf varieties. In the same year along with the wheat, the dwarf Paddy was also imported from Philippines and Taiwan and hybrid maize Ganga 1,3,5, and Vijay, Jawahar Sona, Kissan, Jyoti also were distributed and the variety of Bajara hybrid were also distributed among the farmers. From the results of these High Yielding Varieties there emerged an astonishing change in the total food production. In 1968, a "unique production" of 170 lakh tons of wheat from 120 lakh ton, has been named "Green Revolution" by the scientist William God of U.S.A.

9. National Demonstration (ND): Among the methods of Extension, demonstration is the most popular medium. Due to the greater impact of sense of vision, the demonstration methods are initiated in the agricultural extension. The first 'Result Demonstration' was started in Texas of America in 1903, where the farmers received the knowledge of new agricultural methods, developed instruments, seeds, and the technology related to crop protection. Like exhibition, through demonstration the comparative study of new and old methods of agriculture are introduced to the farmers and to attract the people to follow the improved methods.

For the purpose of using the demonstration methods effectively and systematically, the Indian Council of Agriculture Research (I.C.A.R.) initiated the National Demonstration Project in 1965. The subject specialists perform these demonstrations on one-acre land. By this, scientific capability of scientists of growing more crops can be known and the farmers are also trained to follow new methods for growing more. The details of expenditure and earning are presented before the other farmers, so that they are encouraged to follow the new agriculture technique. Four subject specialists were appointed in a team at district level for National Demonstration. Among them the specialists were of different subjects i.e., soil-science, crop-protection, agricultural chemistry and agricultural engineering. The farmers were also helped financially to encourage them to participate in this project.

The National Demonstration completed many important tasks till 1965. At the first stage in 1965, the capability of high yielding variety was demonstrated. At the second stage, in 1967, to grow the crop production by high yielding varieties in the definite area within definite period was

introduced. In the third stage, in 1969, the National Demonstration was introduced in all the districts intensively. In the fourth stage, in 1970, the demonstration provided new technology to the farmers. In this way National Demonstration is the main source to give new knowledge of agriculture to the farmers.

10. Command Area Development Programme (CADP): Including three annual projects (1966-67), this type of programme was the first one made. The main object of this project was to utilize the available water in proper manner.

Objectives: (1)To reduce the wastage of water by over irrigation and drainage. (2) To get more production by making such a programme of crop according to water, soil and the levelling of the fields.

Programme: (1) To follow proper irrigation methods. (2) Pay special attention to the management of land, so that the condition of land may be improved and soil erosion may be prevented. (3) To make channels of irrigation in the field. (4) Pay attention towards the good drainage. (5) To circulate proper crop rotation in the area. (6) To encourage night irrigation for preventing the wastage of the water. (7) To make the levelling of the fields. (8)To build the tube wells along with the channels.(9) Arrangements of markets, workshops and roads in the area.(10) Consolidation of holding and making boundary wall.

11. Tribal and Hill Area Development Programme: This programme was introduced in the last years of "Fourth-five Year Plan" by the central government in 1973-74. Tribal Development Project had been launched initially in the following 8 districts:

(1) Andhra Pradesh	-	Shrikakulam
(2) Bihar	-	Singhbhum
(3) Madhya Pradesh	-	Jhabua and Raipur
(3) Orissa	-	Ganjam, Koraput,
	-	Keonjhar and Phulbani

Hill Area Development Programme was started only in two districts:

(1) U.P.	-	Paudi-Garhwal
(2) Manipur	-	Nangva

In fifth five year plan, third Hill Area Development Programme was introduced in Teheri-Garhwal in U.P. Besides these, the other states which include the hill area, special aid from the Planning Commission was directed towards them.

Programme: (1) The best utilization of water and land for agriculture and horticulture. (2) The improvement of land, water and electricity. (3) Facility of housing for the landless farmers. (4) To minimize the traditional planting of trees and Jhoom farming on the farms. (5) To encourage the side business-cattle development, dairy development, piggeries, goat, sheep, beehive and silk-worm taming. (6) To aid the tribal area, to sanction the loan and to free them from landlords.

12. Desert Development Programme (DDP): This programme has been initiated in 1977-78. Its main aim is integrated development of desert area. This programme is operational in 227 blocks of 36 districts of seven states i.e. Rajasthan, Haryana, Gujarat, and Jammu & Kashmir. It includes area of 4.57 lakh square km.. In eighth five-year plan, Rs. 500 crores had been spent. Cent percent expenditure has been done by central government till 1994-95, but in the year 1995-96 the central government had spent 75 percent and the state government had spent 25 percent,

while in cool area the central government had spent cent percent. From the year 1977-78 to the March 1995, a fund of Rs. 595.51 crore had been spent on this project.

Objectives: The integrated development of the desert area should be done by increasing production, level of income, providing the facility of employment and best utilization of the available resources.

Programme: Planting the trees, collection of the resources of water, electrification in the villages, development of animal's etc. works has been done.

Achievements: From the initial year 1977-78 to March 1995, the levelling of the land and soil conservation of 1710 thousands hectare land, the development of water resources in 68 thousands hectare and aforestation and desert land development have been done in 276 thousands hectare land. In the year 1995-96, for this project, Rs. 105.85 crore had been recommended in which Rs. 5.84 crore rupees were the allotted amount of the states. In this programme research information, education, training etc. programmes have been included. In this programme during 1995-96, 1615 watershed projects have begun.

13. Drought Prone Area Programme (DPAP): In India, there is a very big draught prone area where it rains sparsely. In these areas famine generally occurs. Central   government had initiated Draught Prone Area Programme for these areas in 1973-74. This programme was introduced in 947 blocks of 149 districts of 13 states. Only those areas have been involved in this programme where it rains sparsely, there is drought and there is hardly any facility of irrigation. Including this, 746 lakh square km. area has been selected. Amount spent on this programme- its half portion was spent by the central government and the state government spent half. On this programme, in eight five-year plans, Rs.1000 crore had been spent, of which half (500 crore) had been spent by central government. From 1973-74 to March 1995, overall expenditure had been Rs. 1742 Crore.

Objectives: (1) Development and management of the resources of water (2) Protection of water and land (3) Planting of the trees. (4) Development of sheep rearing along with meadows (5) Establishment of dairy industry and animal husbandry (6) New crop rotation and new changes in the method of agriculture.(7) Development of subsidiary industries.

Achievements: From the year 1973 to March 1995, land levelling and damp soil conservation in 2975 thousand hectares of land, development of water resources in 946 thousands hectare of land and aforestation had been developed on 1,776 thousand hectare land. From 1995-96 this programme is carried on as Water Shed Project. The central government has fixed 125 crore rupees for DPAP. Under this programme, 4,957 Water Shed Project have been started. For the year 1996-97 the central government has spent Rs. 125 crore on Water Shed Project.

14. Farmers Development Projects: For the progress of rural community, the successive governments initiated the projects. Though prosperity and development has been noticed, yet the socialists and economists attracted the government's attention towards the flourishing inequity, which had been created due to the concentration of the benefits to the medium and high-class farmers. Consequently there was no significant improvement in the conditions of small farmers and the farming labourers. In the changing circumstances, Government of India has undertaken effective steps to implement these special projects for the small farmers, marginal farmers and agricultural labourers for bringing the improvement.

(i). Small Farmers Development Agency (SFDA): In 1967, for the welfare of small farmers, this project was formed by the Government of India and was named "Small Farmers Development Agency". The registered Council implemented it. The total expense of this project was borne by the central government and the state government introduced the project. The main object of this project is to provide loan from the loan institution, co-operative and commercial banks, to study their problems, to arrange small irrigation, to provide new agricultural instruments and to build field project after witnessing the present resources of farmers. So they can be made economically capable. For the integration of this project, search committee and the project implementing committee and on the district level working and integration committees are organized.

(ii). Marginal Farmers And Agricultural Labour Development Agency (MFALA): The Government of India made efforts to bring the change in the economic condition of marginal farmers and agricultural labourers. In 1967 this project tried to provide intensive agricultural methods, loans, and production materials for the increment in their income. Inclusive this programme there was planning of the small industry for providing more chances of employment to the marginal farmers and agricultural labourers. For the implementation of this project, the Government of India had arranged the amount of Rs. 45 crores during fourth five-year plan. Through out the country, 40 such projects were launched. The benefit of this project centred only to those farmers and labourers, who had smallholdings less than one-hectare land or they get 50% of their income or more through agricultural labour. An autonomous committee in the district concerned to the project area was organized for the implementation of this project. The district magistrate was the Chairman of this registered council and Planning Officers were Secretary. The work of this committee was to select marginal farmers and agricultural labourers in the project field to study their problems, develop rural industries for providing better chances of employment and the arrangement of the facilities of distribution and collection of production.

15. Employment Prone Programmes: The most burning problem of the large developing countries is the unemployment of which the other name is poverty. The basic aim of all the programmes such as industrialization, land improvement, increment in the national growth and five year plans, is that the people of the country may get jobs and their economic condition may be improved. In the last 58 years, due to organized development, the production of industry and agriculture increased and there are also greater chances of employment. But the percentage of unemployment did not decrease as expected. The flawed economic structure and the continuous growth of population are the responsible factors for it. The government had organized different programmes such as I.R.D.P., N.R.E.P., R.L.E.G.P., TRYSEM, J.R.Y. to eliminate the problem of unemployment**.**

(i). National Rural Employment Programme (NREP): In 1977, for providing employment to the poor villagers and for the construction of permanent community property, programme of "Grain for the sake of Work" was started and later in 1980 it was renamed as "National Rural Employment Programme". From 1st April 1981, the central and the state governments have introduced this project on the basis of ratio of 50: 50. The wages was not given only in the form of grains but everyday per man was paid 1 kg. of grain and remaining wage was paid in cash.

Objectives: (1)To provide extra paying jobs for the large number of unemployed belonging to the rural areas or the men and women who had minimum paying jobs to work, so that their income may increase and the standard of living may also rise. (2) To make such matter for common welfare in the village through which the production may increase as well as their

standard of living may also rise. (3) To make the proper use of extra safe stock of grains for the development of mankind.

Programme: (1) To construct irrigation projects (2)Flood control and drainage system. (3)The work of conservation of water and soil. (4) The work of land reformation. (5) To develop the afforestation and social forestation. (6) To construct roads, schools, hospitals in the rural area. (7) To supply the drinking water (8)To deepen and reconstruct the ponds (9) To make pump set for irrigation.

(ii). Training of Rural Youth for Self-Employment   (TRYSEM): "Training of Rural Youth for Self Employment"- this programme has been structured in the form of co-operative project under the Integrated Village Development Project from 1979-80. Under this project, the marginal and small farmers living in the rural areas, the agricultural labourers and the rural young boys and girls whose age is between 18 to 35, belonging   to the families of rural artisans and living below poverty line, are being trained and later settled in the self-businesses of local resources.

Every year, during this programme, 40 trainees are trained at each development block. During the training period the trainees are paid student fellowship. To make the programme more effective, it is under consideration that after the training, the boys and girls should be settled soon in the private jobs. In the year 1995-96 the goal of training young boys and girls was not decided Still at the end of the year 2,87,482 youth were trained, out of them 1,33,756 were S.C. and S.T. and 1,23, 108 were girls and 90,273 trained boys have settled in their self job after training and 45,998 youth have got jobs. Convener of training have been appointed at the district, zone and state level to make this project more effective in the coming years and there on. Four training centres have been started especially for TRYSEM and the desirable financial aid has been obtained from Khadi Rural Industry for the training of different jobs.

Objectives: To ensure self-employment after training of rural youth boys and girls those who are living below the poverty line.

Who were advantageous?: (1)The boys and girls of small and marginal farm families (2) The boys and girls of farmers and agricultural labourers (3)Rural artisans and craftsmen (4)The boys and girls of other families living the life below the poverty line (5) The boys and girls between the ages of 18 to 35 (6)The boys and girls having the educational facilities according to the job (7) Preference to the S.C. and S.T. farm families (8) Priority to disabled in some jobs (9) The admission fee is Rs. 50 per month for the person who is above the poverty line.

Provided Facilities of: (1) scholarship of Rs. 250-300 per month (2) loan by the commercial banks (3) tool kit costing about Rs. 2000 (4) guidance and consultancy related to the industrial jobs.

Programme: The trainings of the profession of blacksmith, construction of leather and rexine, tinsmith, sculptors, furniture making, lathe machine, repairing of cycle and rickshaw, motor winding, electrician, Hindi type writing, Photography, repairing of the Diesel pump-set, electric welding, wood-work, hosiery, computer, poultry farming and plumbing for a period maximum of 6 months.

(iii). Integrated Rural Development Programme (IRDP): "Integrated rural development programme" is the latest programme that has been made after considering all the success and failures of all the programmes that was introduced before and after Independence. This programme was introduced in 2,300 blocks of the country in 1978-79 and after some time, on 2nd October 1980, it was introduced in all the blocks of the country. Each block will get Rs. 5 lakh or 3000 families in every block will get direct help within five years. In every block 600 families are selected. Among the total selected families, there are selected 50 percent families of S.C. and S.T. castes, 40 percent women and 3 percent disabled and remaining 7 percent other general poor families.

Objective: To provide necessary help to the poor families in the village to raise them from the poverty line.

Who were beneficiaries?: (1) Small and marginal farmers (2)Agricultural labourers (3) Rural artisans and mechanics (4)The families of S.C. and S.T. castes (5) All those families who were below the poverty line or their yearly income were below Rs.11, 000 annually.

Working System: The management of I.R.D.P. is guided by the District Rural Development Agencies. Members in the guidance council of District Rural Development Agency are Local M.P., M.L.A., Chairman of Zilla Panchayat, the persons of District Rural Development Department and the representatives of women and S.C. /S.T. The responsibility of managing the programme is upon the authorities of community development block. At the state level, there is an integrated committee, which supervises the management of this programme in the state. The central and state governments supply the necessary funds in the ratio of 50: 50 percent for I.R.D.P. In the year 1996-97, the Rural Employment and Poverty Uproot Department fixed Rs. 2,195 crore and Rs. 6,437 crore by the central government.

Programmes: In this programme, the needy families are selected very carefully. After the selection of the families, the family members are consulted and the appropriate profitable work is selected. Under this programme, every family is provided subsidy from 25% to 33.3% and the remaining aid is given to them in the form of loan. In this way, for fulfilling the economic need of every family, efforts are made for raising their income.

(iv). Rural Landless Employment Guarantee Programme (RLEGP): This project was running purposefully by the total help of the central government from 1983 in the rural area by providing the employment of 100 days work in a year to at least one member of landless labourer and to construct permanent properties, which may be helpful for the rural development. According to this programme, till now, the labourers got 1 kg wheat, at economical rate of Rs.1.50 per kg on every day labour work. In the year 1987-88 the Government of India allotted 1, 35,750 metric tons wheat at economical rate for the state and instructed to give 40% wages in the form of wheat. In this programme those labourers who were engaged in the construction of roads, irrigation, other works; their wage was Rs. 11.50 per day. Additionally where these labourers were getting economic advantages from fixed rate of wheat by the government, on the other side there was stability of the rate of food production in the market and the state got the extra resources of about Rs. 21 crore. In the present time this project has been merged into Jawahar Rozgar Yojana.

(v). Jawahar Rozgar Yojana (JRY): This project was initiated on the birth anniversary of the first Prime Minister of India, late Shri Jawahar Lal Nehru during 1989-90.

Objectives: (1)To arrange the employment for the unemployed and semi unemployed members of the family living under the poverty line (2)The construction of such community property in the rural area which, may be helpful in reorganizing their social and economic establishment, the motives of economic standardization, and useful to bring permanent improvement in the economic level of the poor rural people (3)   To bring exponential improvement in the rural life.

Who were advantageous?: (1)The families living under the poverty line (2)The families of S.C. and S.T. (3) 30 percentage places of opportunity are reserved for women.

Characteristics of the programme: (1) To provide the full responsibilities to village panchayat for managing and introducing the project. (2)   Transfer of money directly to the Gram Pradhan on the basis of population of the area. (3)   The Village Panchayat are themselves capable for their planning (4)The compulsory 60% expense for the share of labour (5) 15% money, out of allotted funds, would be spent on the construction of the houses for S.C. and S.T. (6) The provision of 80% expenditure under the central government and 20% is to be shared by the states in the ratio of 80: 20 (7)Total ban upon the tradition of mediatorship (8)   The minimum wages is determined at Rs. 49 per day.

Achievements: From 1993-94, Jawahar Rozgar Yojana had been implemented in three stages. On the 1st stage, the general work in which there were main schemes- (i) Indira Housing Scheme and (ii) Million Bank Scheme ,on the 2nd stage, the specially identified 120 backward districts and on the 3rd stage, the special and new projects were introduced for the economic help.

(vi). Transfer Of Technology Programme (TOT): Today if we observe the economic progress of the country, it is evident that if the farmer is prosperous, the economic progress of the country will gain speed. For the prosperity of farmers, it is necessary that farmers obtain maximum production from the fields. This high yield can be possible only when the advantages (new practices) of research is practiced in fields of farmers in which, there may be improved seeds for more production of different crops or the latest developed crop-production technology. It is possible, only when agricultural universities and agricultural research centres understand the challenging responsibilities themselves and the new technologies in the field of agriculture founded by them, are brought out from research centres and demonstrated in the fields of farmers and in the backward areas.

In this direction Lab to Land Programme (L.L.P.), Operational Research Project (O.R.P.), Krishi Vigyan Kendra's (K.V.K.) etc. programmes are being carried on, which are bringing out the technology in the fields from research centres. In May 1985, Indian Agriculture Research Institute took a challenging responsibility to organize Transfer of Technology (TOT) to give a new motion to the agricultural development and to demonstrate the latest technology of agriculture in the fields of farmers. This is to provide the direct advantage in the most backward areas of   Sultanpur and Raibareilly district of U.P.

The senior scientist of I.A.R.I with the help of other subject specialists, scientists, considered the needs of the area, and formed a new scheduled programme of transferring technology which was named   as   Integrated Whole Village Agriculture Development Programme. Under this programme, mini-kit, O.R.P. and L.L.P. the latest crop production technology has been successfully demonstrated through the training programmes of the farmer. In these programmes

the farmers have been freely provided improved seeds, fertilizers, agricultural chemicals, along with the technical knowledge of crop production by technical workers.

The objective of this programme is to change the traditional thinking and mentality of the community (80% backward classes) of the village Raibareilty and Sultanpur districts. In 1985-86, under this programme, there were included 1850.05 acres lands of 2397 farmers in the 9 villages of 2 C.D. blocks in Raibarielly and 3 C.D. blocks of Sultanpur districts. In the year 1986-87, crop demonstration was done in 2598.60 acres land of 3054 farmers in 17 villages out of five C.D. blocks. In 1987-88, in the third year, there were selected 14 new villages in place of 17 old villages, and demonstrations on different crops were performed in the 530 acres of land of 950 farmers. In this programme 70% land of selected villages became fruitful. In this programme, all the families were involved in the villages that were selected, so that all the farmers of all the classes may be benefited.

(vii). Minimum Needs Programme (MNP): India is a country of villages where 80% of the population resides. For the integrated development of the country we cannot overlook the development of the villages. So, after independence, emphasis was laid upon the integrated development of the villages. For this, there were introduced many programmes. Among them the main "Minimum Needs Programme" was initiated in 1977. In this programme we pay our attention to the social investment. For the Poverty Uproot Programme the Minimum Needs Programme has been introduced to provide the basic facilities and services. In this programme were included rural health, rural electricity, rural housing, the improvement of urban slums, primary education, adult education, the rural water supply, rural sanitation, public distribution system and solar energy etc.

16. National Agriculture Research Project (NARP):
National Agriculture Research Project has been introduced for re-strengthening the Zonal Research Centre of State Agriculture University by I.C.A.R. New Delhi, which is economically financed by the World Bank through International Development Association (I.D.A.) This project, had been introduced in 1988. The main objectives of this project were to study the agriculture related problems associated to different climates and to bring the solution after research and above all to strengthen the Zonal Research Centres. There were following research works under this project: (1) Research on the food grains, pulses, oil-seeds that were mainly grown in the un-irrigated condition.(2) Research on animal husbandry (3) Research on the agronomy methods (4) Research on the water and soil conservation (5)Maximum Utilization of land and other natural resources from the point that it may not leave any adverse effect on the environment.

17. Project of Local Area Development of Parliament Members: It has been often seen that the area from which the parliament members are elected, the people of the constituency come urging to them for their work. These work need financial assistance. However the parliament members were not in the financial position to guarantee their work. So the members of different political parties demanded that they should be permitted to recommend to the district magistrate for some tasks in their parliamentary fields. The Government of India discussed this suggestion and decided that in this context a new scheme be introduced. This scheme has been named as "The Local Area Development of the Parliamentary Members". According to this scheme, each parliamentary member can suggest to D.M. of his area to do some work to the cost of Rs. 1 crore. The members of Rajya Sabha can select one district from the state they represent for doing

such type of works and will suggest to D.M. in this context. This project has been executed from 1990.

The Rural Development Ministry will give the funds directly to District Magistrate and the D. M. is responsible to introduce the project. The D. M. will discuss with the parliament member, and with the cooperation of governmental agencies, this work will be completed. So the responsibility of assigning and receiving the money, contract for the work and the payment of the money etc. related work will be done by the D.M. For such dealings, there will be the same method that is traditionally followed. In this project, only those works can be done which generate the feature of permanent utility. Any expensive work cannot be done under this project. According to the project, a work should not cost more than Rs.10 lakh. Indeed, this project is for the small work of local needs. On the recommendations of the parliamentary members, following types of work can be done which must not   exceed   10 lakh rupees. This list is only for example sake. In it, other suitable tasks can be added: (1) Construction of the school building (2) Arrangement of drinking water through tube wells or any methods in the villages, towns,   and cities (3)Construction of roads and linking ways (4) Construction of bridges (5)   Construction of community residence for the old persons and disabled people (6)Construction of the building for Gram Panchayats, hospitals and for socio- cultural related activities and games (7) Planting the trees on government and community lands and to provide the chances of employment through social forestation. (8) Digging and cleaning the rural wells (9) To create the chances of employment and to construct the canals to stop the wastage of   water (10)Construction   of Community Gas Plant and other works etc. (11) Arrangement of "small dam" or Lift Irrigation Project or Water Level Recharging Schemes" (12) Construction of Public Library and study rooms etc. (13) Construction of crèches.(14) Construction of Public Centres for women welfare. (15) Construction of Primary Health Centres or post-mortem rooms.(16) Construction of crematorium. (17) Construction of public toilets and bathrooms.(18) Construction of drains for discharge of the dirty water.(19)Laying of footpath. (20) Arrangements of electricity, water and roads to the villages and urban slums. (21) Construction of small roads in the midst of cities, towns and the old houses in the villages.(22) Construction of guesthouse in the tribal area (23) Construction of Bus Stoppage or Bus Shelter for the travellers travelling by public vehicles. (24)The construction of mobile toilets for carnivals, gatherings, games, festivals and local municipalities (25) Any other work suggested by the central government from time to time.

This list is only for example; in it other works of public utility can also be included.

18. Watershed Development Programme (WDP) :
India is an agricultural country and so agricultural activities are the backbone of the economy of our country. It is assumed that in our country the agricultural work is totally dependent on the monsoon. There is concrete evidence of this point that the major part of the country is affected either by flood or by serious draught every year. Consequently the animals and trees are destroyed in a large number, along with destruction of crop and soil erosion. In the year 1994, during south-west monsoon 67% districts of the whole country were influenced in which 72941 villages, 48.92 lakh hectare land, 235.35 lakh residential area were influenced in which 41.77 lakh hectare crop area, 9,20,495 houses, 2,038 the lives of men and 54,535 animals were destroyed due to the excess of rain and floods etc. During 1994-95 due to draught 105.72 lakh hectare crop area were affected. In the month of March and April 1994, 4, 57,606 lakh hectare Crop area had been damaged by the hailstorm.

In comparison to flood, draught creates many serious troubles such as unbalanced ecology, lack of humidity in soil, lack of water etc. Many programmes have been introduced in the last three decades such as CADP, DPAP and DDP etc for tackling these serious problems. It is evident from the results of these programmes that these programmes could not have the long term affect for the related areas. The opinion of agricultural scientist is that without balanced development of soil, land, water and forest, it is impossible to have proper ecosystem, so, there is need of proper and integrated management. In the present times the management of land, water and forest, has become a challenge in the rural areas and considering it, the government formed Shree Hanumant Rai Committee. According to the recommendations of this committee, integrating the entire special programme belonging to the fields, Water Shed Development Programme has been made.

Objectives: (1)The proper arrangement of green plantation, soil and water to produce more and more crops, grass and trees.(2)The conservation of water and soil and to prevent soil erosion.(3) To reduce the soil particles in the flowing water, and.(4)To determine which work, when and by whom will be done?

Programme:(1)To develop the proper technology of the water management to minimize adverse effect of draught upon animals and crops.(2) Integrated efforts to prevent the process of desert. (3)To encourage and to make best efforts for maintaining balanced ecology (4) Get the advantage of modern technology by combining it with the traditional technology. (5) To strengthen the economic life of rural community. (6) To bring an improvement in the social and economic condition by providing the different resources to the poor community, backward class, resource less people and for the women.

Economic Management-Watershed is a geographical unit area, which is related to the collection and flowing of the water to a definite point. The sphere of one "Water Shed Development Project" is considered 500 average hectare lands and on per project Rs. 20 lakh have been allotted for the expense. On this programme, the fixed amount will be spent in the following way:

1.	Draught Management Area Development Programme	=100%
2.	Desert Area Development Programme (similar to Desert Land Development Programme)	= 100%
3.	From the fixed amount of Jawahar Rozgar Yojana	= 50%
4.	From the fixed amount of Definite Rozgar Yojana.	= 50%

During the year 2005-2006, on this work, about Rs. 1,200 crore is fixed in the budget. Mainly rain dependent or draught affected district will be included within this programme.

Implementation- The selection of Water Shed Organization and implementation will be based upon public participation. In this project, the role of Gram Sabha and Panchayat is very important. For the implementation of this project, the period of 4 years has been determined. The responsibility of selection of the implementation agency has been given to District Rural Development Authority (DRDA). For the implementation of the project, one Watershed Development Team (W.D.T.) will be organized. During the four years this team will popularise the programme and will do extensive surveys of the resources of the area etc. Except these

works, it will cooperate or guide those works as Watershed Association, Watershed Committee, Demonstration Group, Self Assistance Group and the organization of volunteer group etc. The Water Shed Committee will record   the day-to-day activities in which there will be 10 to 12 authorities. One proposed member by the Watershed Development Team will also be the member of this committee. For completing the work of Watershed Project in a year, the fixed amount will be paid on the basis of work-progress of the project, of which brief description is as follows.

First year	-	25%
Second year	-	40%
Third year	-	25%
Fourth year	-	10%

During the period of implementation of the programme, WDT group and Self Help Group will deposit 10% and 5% respectively whether in cash amount or labour in the form of participationship, which, in the later years, will be spent on the maintenance. There is one arrangement that property less members of Self Assistance Group can be paid the amount of Rs. 10 thousand for more work and this amount would be taken back in the future.

Committees for Implementation of Watershed Programme:

At the central level	-	Rural Development ministry
At the state level	-	State level project review committee
At the district level	-	District Panchayats /District Rural Development Authority
At the watershed level-		Gram Panchayats/Watershed Association/Watershed Committee

19. Million Well Project: In 1988-89, a new project was started for providing the facility of irrigation from the wells without any cost for such people like small and marginal farmers living under the poverty line, scheduled caste and tribal people and labourers. The name of this project was Million Well. This was introduced under the 'Employment Guarantee Programme' and the 'National Rural Employment Programme' for the landless people. In April 1989, joining the both employment programmes, a new programme was formed which was named as 'Jawahar Rozgar Yojana'. Million Well Project is being guided under   'Jawahar Rozgar Yojana'. Today, this project provides money for the wells. Due to the geographical reasons, where the wells cannot be dug, the allotted amount is used for the digging of the irrigation ponds, construction of the places for storage of the water and for the development of land of scheduled caste, tribal people and labourers under this project. In this land, that land is also involved which they obtained through Bhudan or that land which they obtained as surplus land under of Land ceiling Act. The responsibility of the implementation of this project is of the District Rural Development Agency on the district level and of Gram panchayat at village level.

20. National Agricultural Technology Project (NATP): To make the technology development project a permanent feature under the National Agricultural Research Project and National Agriculture Extension Projects and for popularising and fulfilling the present and necessary needs of it, the Government of India took a decision to organize a new National Agricultural Technologicy Project with the financial support of the World Bank. This project was introduced in the financial year 1995-96. Govt. of India approved this project in November 1998 for full-

scale implementation. The diverse activity of the project has been planned under three major components:

(i)   Agro-eco System Research - This component covered support to research programmes. The Project Implementation Unit (PIU) had been set up at ICAR, New Delhi.

(ii)   Innovations in Technology Dissemination (ITD) - Technology Dissemination Unit (TDC) had been established in the Directorate of Extension, Department of Agriculture and Cooperation (DAC). The ITD proposals received from the DAC and the Division of Extension, ICAR are being processed by the TDC and put up for the approval by the Technology Dissemination Management Committee (TDMC). The DAC component involved mainly setting of the Agricultural Technology Management Agencies (ATMA). Selected State Agriculture Management and Extension Training Institutes (SAMTIs) were strengthened to train farmers and extension workers.

(iii)   Organization and Management Systems - Under this component, following activities were supported (a) organization and management (O & M) reform in the ICAR, (b) strengthening of the ICAR Head Quarters, including the National Agricultural Science Centre (NASC), (c).Directorate of Information and Publications of Agriculture (DIPA) (d) institutionalisation of priority-setting mechanism, monitoring and evaluation (PM & E); and (e) Information System Development (ISD), covering Agriculture Research Information Service (ARIS) and Library Information and Networking.

21. Child Development Programmes: On the basis of the census 2001, the population of women and children is 49.87 crore (48.2%) and 86 lakh (15.42%) respectively out of the total population of the country. Women and Child Development Department is working under the Ministry for Human Resources and determines the programmes, planning and policies related to the development of women and children and the action plan between the government and the non-government organizations. There is also planning for women development and securing jobs for them.

Women and Child Development Department manages its programme through two different bureaus- (i) The Bureau of Nutrition and Child Development (NCD) and (ii) The bureau of Women Welfare and Development (W.W.D.). This department through these Bureaus introduces three organizations in which the first is National Institute of Public Co-ordination and Child Development (NIPCCD) and the second is Rashtriya Mahila Kosh (R.M.K) and the third organization is the Central Social Welfare Board (CSWB). Out of the above organizations NIPCCD and RMK are working under Society Registration Act 1860 and C.S.W.B. is under the Charitable Company Registration. The central government co-operates with these organizations entirely for the progress of their programmes.

(I). Integrated Child Development Service (ICDS): A National Policy for Children was launched in 1974. During 1975-76 under this policy ICDS Policy was launched in 33 blocks of the country and till 31st March 1996, 5,615 ICDS Projects reached to the poor areas of 310 big cities and 5291 community development blocks of the country. According to this scheme up to 6 year old children are selected. Today, this project has provided   Pre-School Education to 10.5 million children (3-6 yrs). For the children of the country, this is the main programme. The services of ICDS have been provided to 22 million children and to their mothers till the year 1996 which also include providing the balanced diet to them.

Objectives-In this project, the objectives are to provide an adequate amount of Nutrition, Immunization from various dangerous diseases, health care and education related to nutrition for mother, health service for children and pre school children Education.

Implementation of the Policy-For the implementation of the ICDS at village level, one centre is established in the 1000 populated slum area of village and city. One Anganwadi centre is established in the hill and forest area of population consisting of 700 people. At one centre of Anganwadi, one Anganwadi worker and one assistant is appointed and at community block level, for the supervision and implementation of the programme, guides under Child Development Project Officer (CDPO) are working. At the district level, Programme Officer is appointed whose main work is to look after, guide and supervise all the ICDS Projects in the district. Rs. 668.05 crore was spent on ICDS Project in 1995-96.

According to the objectives of this programme, the nourishment is supplied by Cooperative from American Relief Everywhere (CARE) and World Food Programme (WFP) and the advice, training, supply of other necessary materials are provided by UNICEF. CDS department is also guiding three main projects besides ICDS, which are as follows:
(A) Early Childhood Education (ECE)-A large number of 4,365 Early Childhood Education centres (ECE centres) are operational in 9 states (A.P., Assam, Bihar, J&K, M.P., Orissa, Rajasthan, U.P. and W.B.) by 190 different voluntary social organizations which are serving about 1.50 lakh children.
(B) Balwadi Nutrition Programme-Today, there are 5,600 Balwadi Nutrition centres in the country working with the help of Central Social Welfare Board, Indian Kasturba Gandhi Memorial Trust, Harijan Sevak Sangh, and Indian Children Welfare Association, where 2.25 lakh children have benefited.
(C) Crèches-In the form of Kitchen Garden 13,713 crèches is helping 3.45 lakh children in different parts of the country. At these crèches, there are various facilities for nourishment, vaccination, health-care and entertainment equipments.

22. Women's Development Projects: On the basis of the census of 2001, the population of women and children is 49.87 crore (48.2%) and 86 lakh (15.42%) respectively, out of the total population of the country. After independence, many projects for women development are being launched in every five-year plan but in the beginning of 1980, in the sixth five year plan a new and separate Women and Child Development Project was initiated. For this, another department has been established under Human Resources Development Ministry. Its main work is to solve the problems of women and to prepare the action plan and to ensure the participation of women in the national development. For this, many projects have been introduced.

(I). Employments And Training For Women Programme: Support to Training cum Employment for Women Programme (STEP) has been initiated in the year 1987. According to this programme the rural women who are living below poverty line, should be trained for some profession, and provided training for learning various types of technology in the field of silk industry, rural and small industry, handicraft, handloom work, animal husbandry and agriculture etc. By this programme 2.56 lakh women have received the benefits till 1996.

(ii). Social Economic Programme: This programme is being operated by the economic aid of Central Social Welfare Board (CSWB) by different social organizations (N.G.Os.). In this programme women are employed in different jobs of small scale industry i.e., handloom,

piggery, dairy, goat rearing, poultry farm etc. by the social organizations. In this way, the income of women increases in cash. In the year 2003-04, 71,240 women have received benefit.

(III). Rastriya Mahila Kosh: The establishment of Rastriya Mahila Kosh had been initiated with Rs. 31 crore as a fund. The main object of this programme was to give economic help in the form of credit to the women of poor class. The registration as a society has been done under the Society Act 1860. A board manages this kosh. Minister for Women and Children is the chairman of this board. Till now, the government has accepted 14 projects on which Rs. 11.34 crore have been spent. There are about 103 N.G.O. of this types through which this Board is carrying on its activities. Almost 99,627 poor women have been assisted till now. The amount increased to 1 crore up to December 12, 2001.

(IV). Mahila Samriddhi Yojana: This project is running in the entire country from 2nd October 1993 by the established post office in the 1.32 lakh rural area. In this project rural adult women are encouraged to save money. In this project, all the adult rural women deposit their income by opening their accounts in nearby post office and maximum Rs. 300 can be deposited in a year on which the Central Government provides 25% internal help after one year. 169.06 lakh accounts had been started in different rural post offices in which Rs. 172.42 crore had been deposited up to March 1996. For the popularity of this project, help of different N.G.Os have been taken.

(V). Indira Mahila Yojana: This Yojana was started on 20 August 1995 in 200 Blocks related to the Children Development Scheme. Its aim is to develop the decision taking capacity among the rural women and to make them aware of their rights. Anganwadi project has been started in the town and rural area for organizing these women. In the Anganwadi centres, Indira Mahila Kendra (IMK) has been developed where Indira Mahila Block Society is organized. In Indira Mahila Yojana about 100-250 women are appointed as members. About 120 Anganwadi Centres are developed on each Block and about 12,000-30,000 women are contacted at every Indira Mahila Block Society. Thus it is expected that minimum 24 lakh women can participate in the first year.

- (i)   Women are encouraged to participate in their level group.
- (ii) Women are encouraged to take part in the village panchayat .
- (iii) In this organization, women representatives are elected democratically.
- (iv) With the help of women representatives of this organization, the possibility of women's development is encouraged in the project of the district level.
- (v) To further the activities of this organization, other non-governmental organizations should also co-operate.

(VI). Women's Development Corporation (WDC): The project was initiated in 1986-87 in different states of the country. The Women Development Corporation (WDC) performs the role of a motivator in the development of women. The main work is to provide the facility of credit card, to suggest about technology, to bring the articles made by women in the market, to support the Women Co-operative Institutions and to train them. This Women Development Corporation is working in Andhra Pradesh, Goa, Gujarat, Haryana, Himachal Pradesh, Jammu & Kashmir, Karnataka, Kerala, Maharashtra, Meghalaya, Orissa, Punjab, Tamil Nadu, U.P., West Bengal and other central territorial areas. This project had been transferred in other states also on the recommendations of National Development Corporation (N.D.C.) in 1992-93.

23. Jawahar Gram Samridhi Yojana (JGSY): The central government had initiated this project of 'Jawahar Gram Samridhi Yojana' on 1st April, 1999 in place of "Jawahar Rozgar

Yojana." According to this project, it is necessary to make annual action plan and to determine its implementation through Gram Panchayat. This project includes JRY, NREP, and RLEGP etc. programmes.

Primary Objectives **-**To determine community property resources which: (1) Make available permanent resources at village level. (2) Make available permanent jobs for the poor families. Secondary objectives**-** Creation of complementary jobs for the poor unemployed people.

Characteristics of the Project:
- (1)   To determine the annual planning of expenditure of 22.5 percentage of the fund for the scheduled caste and tribal class people.
- (2)   To determine the wages of labour for those families living below poverty line.
- (3)   This programme will get financial aid in ratio of 75: 25 by central and state governments.
- (4)   This programme will be managed totally by Gram Panchayat.
- (5)   The central aid will be provided to the state in ratio of total number of poor in the whole country and total number of poor in the state. Planning Commission and National Development Council will decide the level of poverty. The state government will provide money in ratio the total poor of the state and total poor of the district.
- (6)   The central aid will be given directly to Zilla Parishad and District Rural Development Authority, which will be given two times in a year. The state government will give its share within one week after receiving the central aid.
- (7)   Zilla Parishad and District Rural Development Authority will transfer this amount to village panchayat within 15 days after receiving the amount from the state and the centre.
- (8)   The transfer of finance and other resources will not be possible in any condition from one district to another district and from one-gram panchayat to another panchayat.
- (9)   If any village panchayat does not spend at least 15% of the money, which it received during its planning time, then this amount will be transferred to other Gram Panchayat of the same, block committee.
- (10)   Zilla Parishad /District Rural Development Authority / Gram Panchayat will have to open their accounts in any National Bank or in the Post-Office with the name of Jawahar Gram Samridhi Yojana. Gram Panchayat will receive the amount only by cheque. On the cheque there will be signature of Gram Pradhan (Chief) and a representative of Panchayat. The election of panchayat representative will be done by passing the bill in the assembly. Panchayat representative can be Panchayat Secretary or any other member of Gram Panchayat.
- (11)   The amount, that is, 22.5% of the total money will be spent on Individual Benefit scheme of Scheduled Caste and Tribal people and 3% for the disabled people by Gram Panchayat.
- (12)   Gram panchayat will spend 7.5% or Rs. 7,500 on administration.
- (13)   In Jawahar Gram Samridhi Yojana, following work will be selected, as the necessary wants on the preference level:
  - (i)   To provide necessary property to the S.C. and S.T. people according their need.

(ii) Construction of the property according to the Swarna Jayanti Gram Swarojgar Yojana.

(iii) Increasing the agricultural activities.

(iv) Construction of public property should be for education, health and roads.

(v) The construction of other social, economic and physical properties.

(vi) Encourage the low cost work.

(14) The following work is totally prohibited in this Yojana.

(i) Construction of temple, church, mosque and any building of religious purpose.

(ii) Construction of any statue, historical building, welcome gate, etc.

(iii) Any type of bridge on canals or rivers etc.

(iv) The building of Intermediate College and Degree College etc.

(v) Dieselisation of irrigation tank.

(vi) Construction of road from cement, koltar etc. materials.

(15) According to Individual Benefit scheme of Scheduled class and Tribal class people the following work should be done:

(i) The development of donated land in the form of Bhudan, ceiling and government land which has been distributed among landless farm families.

(ii) Encouragement of the social forestry works i.e., fuels wood and the green fodder for the animals etc.

(iii) The work of gardening and farming of flowers etc.

(iv) Construction of wells and their boring for irrigation.

(v) Construction of ponds for fish keeping.

(vi) To provide the sources of other jobs.

(vii) Construction of residential units.

(viii) Preference would be given to the economic programmes on the basis of their needs.

(ix) Construction of smokeless chulha, personal hygiene and toilets.

24. Swarna Jayanti Gram Swarojgar Yojana (SGSY): The Government of India in the entire country introduced Swarna jayanti Gram Swarojgar Yojana (SGSY) from 1st April 1999. After the introduction of this Yojana the IRDP, TRYSEM, DWCRA, GKY, SITRA all emerged from this one project only. The main object of SGSY is to raise the poor people (self job workers) from below poverty line within three years by providing income-generating activities with the cooperation of government aid and bank loan. Its main purpose is to ensure that the net and monthly income of the family should be minimum of Rs. 2000. It will be tried that in the next five years, in every block minimum 30% of poor families may come in contact with this project. Quality is the certificate of this programme and the assumption of this programme is to raise people from poverty line.

Before SGSY, many programmes were introduced for elimination of poverty. All of them functioned as the separate programmes so there was lack of desired communication, the proper social opinion and in their implementation there were emphasis on achieving the goals and not on centralizing their attention on the important matter of continuously increasing the income by permanent resources. For improving this condition, the government has organized these self-

employment programmes and introduced a new programme on 1st April, 1999 SGSY. This is extensive programme in which are included all the aspects of self employment i.e., the organization of Self-Help Group, training, loan, technical structure, and marketing for the poor people. The central and the state governments will financially aid this project in ratio of 75: 25.

Characteristics of this Project:
(1) The object of this Yojana is to establish small industry based on the working capacity of poor people in the rural area.
(2) Aided or assisted families (self-employed) may be either single or in-group. The feeling "we" should be developed in the group.
(3) Every aided family is to be raised above the poverty line within three years.
(4) This Yojana will be extensive programme of small industries in which there would be every aspects, i.e., the organization of self help group of poor people; the development of their capacity, planning of their group activities, technology, loan and marketing.
(5) In this Yojana, emphasis will be laid upon the group aspect regarding the establishment of small industry.
(6) A project report will be prepared for every activity in this Yojana in which Bank and other financial institutions will be directly contacted.
(7) In this Yojana, there will be efforts to connect 30% poor people through competent programmes in every block development in the next five years.
(8) This Yojana will encourage taking of loan at different stages in comparison to the whole amount taken at a single time.
(9) In this project, emphasis will be laid on the development of talent by a systematic training syllabus.
(10) This Yojana will encourage the marketing of materials produced by self-employed.
(11) According to this Yojana the general self-employed and scheduled caste and scheduled tribes will get 30% and 50% subsidy respectively.
(12) According to this Yojana, the poorest among the poor people will be the central focus. Thus among the self-employed there will be 50% scheduled caste and scheduled Tribes, 40% women and 3% disabled self-employed.
(13) The implementation of this Yojana will be carried out by Distt Rural Development Agency through panchayat samitis. In the implementation and supervision of this project, the banks of Districtand other financial institutions, Panchayati institutions, non-government organizations will be involved.
(14) According to this Yojana the central and state governments will allot the money in the ratio of 75: 25.
(15) For the states, the distribution of central allotment will be decided considering the seriousness' of poverty of the states.

25. Agro-Clinic Yojna: According to this project, the latest research knowledge of agriculture will be given directly to the farmers. The unemployed agriculture graduates will organize these centres. By this clinic project, many programmes will be organized for the farmers, such as the latest agriculture technology, verified or approved seeds, the knowledge of preparing the soil for sowing different crops, the use of pesticides and insecticides, crop diseases, and their treatment, different irrigation systems, the proper use of fertilizers and water, the knowledge of agricultural instruments and the improvement of animals' variety etc. programmes. Many programmes will be introduced through Agro-clinic Yojana according to the weathers; medicines for the treatment

many diseases of animals, healthy animal breed, the look-after of pregnant animal etc. As declared by the agriculture minister, this project will encourage the graduates to open agro-clinic centres in rural areas, and government will provide loan and subsidy on this loan also. This project was introduced in the financial year 2001-2002. This magnificent yojana was initiated for the first time in the country.

26. Sampoorana Gramin Rozgar Yojna: The Sampoorana Grameen Rozgar Yojana (SGRY) was launched on 25 September 2001 by merging the on-going schemes of EAS and the JGSY with the objective of providing additional wage employment in the rural areas as also food security, beside the creation of durable .community assets in the rural' areas. The programme is self-targeting in nature with special emphasis on women, scheduled castes, scheduled tribes and parents of children withdrawn from hazardous occupations. While preference will be given to BPL families for providing wage employment under SGRY, poor families above the poverty line can also be offered employment under the programme. The annual outlay is Rs 10,000 crore which includes 50 lakh tonnes of food grains. The cash component is shared between the centre and the states in the ratio of 75:25. Food grains are provided free of cost to the States/U.T.s. The payment of food grains is made directly to FCI at economical cost by the centre. However, the cost of the transportation of the food grains from the FCI Godown to the work-site/PDS and its distribution is the responsibility of the state governments. Minimum wages are paid to the workers through a mix of minimum five kg of food grains and at least 25 per cent in cash. The programme is implemented by all the three tiers of Panchayati Raj Institution. Each level of Panchayat is an independent unit for formulation of Action Plan and executing the scheme. The resources are distributed among District Panchayat, Intermediate Panchayats and the Gram Panchayats in the ratio of 20:30:50.

The Gram Panchayats can take up any work with the approval of the Gram Sabha as per their felt needs and within available funds. Fifty per cent of the funds earmarked to the Gram Panchayats is to be utilized for the infrastructure development works in SC/ST localities, 22.5 per cent resources must be spent on individual beneficiary schemes meant for SC/ST out of Zilla Parishad and Panchayat Samiti's share of resources. Contractors are not permitted to be engaged for execution of any of the work and no middlemen/ intermediate agencies can be employed for executing the work under the scheme. The programme is regularly monitored. The programme would also be evaluated through impact studies conducted by reputed institutions and organizations sponsored by the central and state government (India 2005).

27. Agricultural Technology Management Agencies (ATMA): The Department of Agriculture and Cooperation, Govt. of India, intends to try a new model through establishment of Agriculture Technology Management Agencies (ATMA) in selected districts involving certain stages under the National Agricultural Technology Project (NATP). The ATMA are expected to operate as a society at the district level, which will ensure active integration, partnership by sharing both the resources and responsibilities among all agencies related with agriculture and rural development. During X Plan period, 252 ATMAs were established at the district level.

Teaching and Learning

Education–Education is a life long learning process by which a person living in a social environment keeps on acquiring new knowledge, qualities etc. and through acquisition of this knowledge brings about continuous improvement in his social, national, international and business life.

Teaching–Teaching is a process in which certain conditions are created so that a person can learn something new from it. Developing interest and will in a person's heart and encouraging him to do a particular work is known as teaching.

Learning–Learning is a process in which a person through his own experiences and capabilities bring about desired change in his behaviour.

Process–It means a curriculum, which has series of activity. By passing through this process a person is able to fulfil his desires.

Training–Training is a process through which positive change is brought about in working capacity of a person. People are made capable and suited for the modern industrialised world through training so that they can utilise the modern highly developed techniques. Without training it is impossible for a person to acquire required capability to tackle new modern situation and necessity.

Definitions of Teaching: History of teaching is as ancient as history of man. The meaning of teaching has undergone change during the course of history. The progress has been from informal teaching to formal teaching. Teaching materials and teaching methods have also undergone change. Some definitions of important scientists are given below which will help in understanding the meaning of the word 'teaching.'

Enzelmein (1961)–"Teaching is the manipulation of environmental variables to cause predicted behavioural changes in the individuals/children."

Burton (1958)– "Teaching is the stimulation, guidance, direction and encouragement for learning."

The essence of above-mentioned definition is– "Process of guidance/training by motivating a person to follow his objectives according to his capabilities by organising/establishing predetermined conditions is known as teaching."

General Principles of Teaching : The important thing for successful teaching is that the extension personnel /teacher should follow some general principles. Some of the general principles of teaching are enumerated below :

(1)   Teacher/Extension personnel should collect information i.e., the standard of student/personnels whom he is going to teach its objective etc. before going to teach the class/groups. Extension personnel / teacher will not be able to impart effective and skill teaching if there is lack in collecting appropriate information. After the collection of general information, teacher/extension personnel should expound definite and explicit objectives.

(2)   A teacher should remember to specify the objectives of subject taught while teaching. Because, the interest among students cannot be generated until and unless they are aware of the reason–why the particular subject is to be studied and what is the utility of this subject? Therefore, in order to develop interest to study the subject, it is necessary to

specify the objective as far as possible before the student/farmers/Extension personals. This facilitates the acceptance of new ideas.

(3)   Teacher/Extension personnel should encourage the students/farmers/personnels to give response in order to evaluate the level of curiosity/involvement for the subject. Beneficial outcome of it is that it helps to attract their attention towards the subject and think about the subject only. Student should be encouraged to ask any question regarding the subject and if they don't the teacher should ask them question regarding the subject. In this type of teaching process, seriousness and inquisitiveness in the mind of student is inculcated.

(4)   Teacher/Extension personnel should try to develop interest for accepting new information among students/extension personals/farmers through his method of teaching.

(5)   Teacher/Extension Personnel should try to inspire sense of responsibility among his students.

(6)   Teacher/Extension personnel should keep in mind that the attention of student in the class should be focused on the subject. For this, a teacher should imply two-way communication process. Teacher/extension personnel should hold active discussion with students on various points of subject during the course of teaching.

(7)   In teaching, evaluation has great importance. Evaluation provides information about adoption capability/acceptance capacity of student i.e., how much they have understood the subject. On the other hand, the teaching method of teacher/extension personnel should also be evaluated in order to determine their efficacy to know how much it is useful in imparting knowledge and to make them more effective. Achievements of student and teaching method of teacher should be evaluated.

(8)   Teacher/Extension personnel should try to create a psychological environment in a class/group so that teaching method can be effectively operated and students are encouraged to attend the class wholeheartedly.

Nature of Teaching : Nature of teaching process can be understood through various different definitions given by eminent educationalist and psychologist. Nature of teaching can be explained in the following way :

1.   Teaching is interactive process–Teaching process operates between teacher and student for specific purpose.

2.   Teaching is a social and professional process–Teaching process functions between teacher and group of students. Presence of at least one teacher and one student is essential. Teaching is a profession and teacher is a person who earns his livelihood through this profession.

3.   Teaching is a purposive process–Process of teaching is followed for achieving specific purpose.

4.   Teaching is a progressive process–Development and desired change is brought about through teaching process. i.e., progress in intellectual field, emotional and activity oriented aspects.

5.   Teaching is art as well as science–Nature of teaching is both an art and science. Planning of teaching and evaluation process is more scientific, whereas the way a teacher delivers lectures and conduct the class is an art.

6.   Teaching is face to face/direct contact process–It involves direct or face to face interaction.

7. Teaching is a remedial process–It helps in solving problems of student and provide cure for their weaknesses.
8. Teaching is a logical Process–Planning of teaching is based on logical analysis. Synthesisation and analysis of subject content is done logically
9. Teaching is evaluated– The evaluation of teaching is done as behaviour of the teacher. Through observation methods, evaluation of the behaviours of teacher and the nature of behaviour is synthesized.
10. In Teaching, reform and development is also done–Desired change is brought about in teaching behaviour through various methods and techniques.
11. Teaching is a continuous process continuing from training up to direction–It starts from the first step that is training and ends at direction.
12. Teaching is tripartite process–Many educationists have called teaching a tripartite process. According to Bloom, teaching has three aspects:
    (i) Objectives of teaching,
    (ii) Learning experience and
    (iii) Behavioural change.
13. Teaching is a Process of Direction–In teaching, development of students is envisaged according to their qualifications, this is also the aim of direction.
14. Teaching is both Formal and Informal Proceses–In school teaching is imparted according to definite programmes and curriculum. The environment also teaches the student.
15. Other points :
    (i) Student is capable of learning and achieving excellence if provided appropriate direction and guidance.
    (ii) Student does not learn from lectures only they also learn from what the teacher has experienced in his life.
    (iii) To acquire knowledge is the first stage of target of learning but this should be perfected in analytical aspects, application synthesis etc.
    (iv) Interaction is higher stage of learning but a person should try to establish direct interaction with the situation in order to acquire high standard of learning.
    (iv) Learning is a systematic approach and in order to derive good result it is necessary to make a plan. Various methods should be selected in order to achieve objectives of learning.

Elements of Teaching: There are three main elements of teaching.
1. Teacher–Teacher is considered as independent variable in teaching process. In teaching, the teacher carries on management, planning and its execution, thus teacher stays very active. What should be the prior behaviour and the teacher decides skill of the student so that the student can acquire new knowledge and maximum objectives could be achieved. The teacher takes student and study material both into consideration when the decision is made. He determines the prior behaviour of the student and after analysing content of subject matter arranges them in a sequential order.
2. Student–In teaching process student is considered as dependent variable because he has to remain active according to teaching plan situation and presentation.
3. Subject matter and teaching techniques–These are known as interfering variables. Means of interaction between teacher and student is subject matter and teaching techniques. Extension workers use folders, leaflets, blackboards etc. as teaching materials and for

teaching techniques the teachers use either of lectures , group discussion, demonstration etc.

Steps of Teaching :In teaching the following steps have great importance because these help the student to learn. Steps of teaching can be analysed in sequence into three steps.

First Step:Pre-active steps of teaching–In this step, teaching plan is prepared. All the work undertaken or done by the teacher prior to teaching comes under this step. In the pre-active steps of teaching the following activities are included :

1.   Formulation of objectives of teaching–First of all a teacher determines the objectives and defines it as change in behaviour. These objectives are of two types: (i) Entering behaviour   (ii) Terminal behaviour.
         These objectives are based on psychology of student and on needs of society and nation.
The following points should be kept in mind during its elucidation.

    (a) All those behavioural activities are identified which influence the student during teaching.
    (b) Those conditions are described in which desired change in behaviour takes place.
    (c) Those criterion behaviour are also defined which assure achievement of objectives. It is in the planning stage that the criteria behaviour analysed and interpreted.

2.   Selection of subject matter–Teacher takes the decision regarding the subject-matter to be taught to the student. He analyses its form and takes decision regarding its mode of instruction, language, logic and aspects. He lays emphasis on its remedial aspect and ascertains that how and what should be the entering prior behaviour of the student for the subject- matter and at what level it should be presented. While taking decision in relation to the subject-matter the following points are to be kept in mind :
         (a) What is the utility/necessity of proposed syllabus for the student?
         (b) What is prior behaviour of student?
         (c) What is the requirement of student at his level?
         (d) Which degree/level of motivation will be effective for student?
         (e) Which different techniques should be employed by the teacher to evaluate student's knowledge in relation to subject-matter?

3.   Sequences of elements of the content–Subject matter of teaching is analysed and its elements are arranged in logical and systematic way in order to impart effective teaching and knowledge.

4.   Decision regarding strategy for teaching–A teacher selects the strategy for effective teaching and presentation while keeping in mind the subject matter and learning standard of the student. In the selection of teaching strategy objectives of teaching predominates.

5.   Development of teaching strategies–Selection of strategy by the teacher alone is not sufficient. He is also required to take decision about which strategy or method is to be employed during various stages of teaching:
         When to deliver lecture?
         When to ask question?

         When and where to use charts and maps?

         When to use blackboard?
         When to ask evaluative question? etc.

A good teacher decides about all these activities of teaching at the pre-active stage of teaching.

Second Step :Interactive Steps of Teaching–All the activities performed by the teacher in the classroom come under the interactive step of teaching. From teaching materials to presentation is included in this step. P.W. Jackson (1966) has given his fundamental views regarding teaching process. Favouring interactive step of teaching he has explained it as :– "Teaching at interactive stage provides various types of verbal motivation from teacher to student like questioning, listening, responding, explaining, and giving instructions etc." In the interactive stage of teaching, the following activities take place:

1. Sizing up the class–As the teacher enters the classroom he tries to size up the whole class. He is able to ascertain those students who may create disturbance or mischief in class and those who may be helpful in creating an environment conducive to teaching. Facial expressions of students express their real feeling, i.e., whether they are enthusiastic or not. This way a teacher sizes up the class. In similar way, a student also forms an opinion about the personality of his teacher. Both go through these experiences in the initial few seconds. At this stage, it is necessary that the teacher should look like a teacher and his dress and behaviour should also be impressive.

2. Diagnosis of the learners–The next aim of a teacher after sizing up the class is to find out about the academic standard of the student. i.e., How much they already know about the subject ? In this way a teacher tries to diagnose through these three aspects:
    (a) Capability and qualification of student.

    (b) Attitude and interest of student.
    (c) Educational background of student.

Generally a teacher collects information about these aspects by asking question. During diagnosis, a teacher follows the following sequence:

   Perception–Diagnosis–Response.

A teacher collects information regarding qualification and interest of student through his perception and he starts/initiates teaching process while keeping it in mind.

3. Initiation and response–Activity in teaching process can be divided into two parts :
    (a) Initiation, and   (b) Response.

These two activities take place between student and teacher and is called interaction. When a teacher starts or initiate the activity the student responds to it and vice versa. This way interaction goes on.

Third Step : Post-active steps of teaching–Third step of teaching is related to evaluation process. Without evaluation teaching is incomplete. Behavioural change in student is evaluated at the end of teaching process. In third step of teaching students are asked written or oral questions by the teacher in order to evaluate them. Main activities of this step are as follows :

1. Change in behaviour through teaching–Change in behaviour is defined in true sense as criterion behaviour. A teacher makes comparative analyses between natural behaviour of student, desired change in behaviour and actual change in behaviour for evaluation. When majority of students behave in desired manner then it can be concluded that the objectives of teaching are fulfilled and strategies have been effective.

2. Selection of appropriate evaluative techniques–The task of a teacher is to select appropriate evaluative techniques. For evaluating desired change in behaviour of student, examination should be legal as well as trustworthy. Both types of examination, which evaluates both cognitive and non-cognitive aspects, should be chosen. Till now the

tradition has been to evaluate only cognitive aspect but this approach is not justified. Development of all the aspects of student is envisaged through teaching.

3. Evaluation–Decision regarding student's real qualities and attainment of objectives is not only taken through the evaluation process but a teacher also takes decision regarding his teaching techniques and strategies on the basis of result of examination. It forms the basis for the development and improvement of teaching strategies and direction. Thus, through evaluation teaching activities are assessed so that they can be improved and made more effective.

All the three steps of teaching should be able to bring change and desired development in students' way of thinking and way of working. Through these steps student should be able to :

(i) Recognise the reality and establish adjustment with it;
(ii) establish coordination between his internal form and external experience;
(iv)develop constructive thinking; and
(v) objective of teaching can be said to be achieved only if the student is able to do so.

Characteristics of Effective Teaching **-** it should: (i) Be interesting,(ii) Develop thinking on the part of learner, (iii) Serve useful purpose,(iv) Promote wide participation,(v) Recognize individual differences, (vi) Provide practice for application for knowledge, and (vii) Make use of variety of teaching methods and aids.

Essential Conditions Of Effective Extension Teaching:

1. Extension teaching requires specific and clearly defined teaching objectives.

    A teaching objective is simply the term used to describe the end products desired or the condition one is trying to achieve through extension teaching. Teaching objective contain four different aspects, namely: (i) who - people to be taught (ii) behaviour change to be achieved (iii) content or subject matter (iv) life situation in which action has to take place.

    Objectives should meet the following criteria:

(i) Be within limitations imposed by laws, resources etc.
(ii) Be significant to a relatively large number of potential participants.
(iii) Be attainable though educational process, within time, resources, and mental, economic and social possibilities of learners.
(iv) Specify the kind of behaviour change.
2. Extension Teaching must accomplish certain kinds of educational changes in relation to the subject matter to be learned among these are: change in knowledge, Attitude and Skill.
3. Extension Teaching requires learning situations that include all five major elements that is Instructor, Learner, Content, Physical facility, Teaching Equipment.
4. Extension Teaching requires that learners have effective learning experiences.
5. Extension Teaching requires usually a combination of teaching methods.
6. Extension Teaching requires careful evaluation of results.

Desirable Qualities of Good Teacher**:** A Good teacher is one who:

1. Possesses a thorough knowledge of the subject matter,
2. Is patient?

3. Goes out of his way in helping to solve the problems,
4. Does not have favourites,
5. Is fair and considerate,
6. Admits his mistakes,
7. Does not get angry when asked to explain again and again,
8. Has the ability to explain difficult subjects in a simple manner,
9. Controls class with love rather than fear,
10. Has a pleasant and sweet manner of presentation,
11. Possesses sense of humour,
12. Is cheerful,
13. Encourages the learners,
14. Is adaptable,
15. Is sincere,
16. Takes interest in students and is friendly,
17. Has clear objectives,
18. Has latest and authentic information,
19. Has skill in guiding learning,
20. Plan carefully and rehearse before presentation,
21. Make judicious use of teaching aids,
22. Evaluate himself,
23. Have mastery over his subject matter and ability to select suitable teaching methods for presentation in the class, and
24. Is democratic in behaviour.

Learning

"Learning is a life long process" –Woodworth

Development of a person depends upon the learning process and for this he attends the school. A person starts learning since birth and keeps on learning throughout his entire life. Due to this learning process he is able to establish adjustment with the environment and is able to solve the problems. Main objective of teaching is to create an environment, which motivates a person to learn. In this way, learning and teaching are complementary to each other.

In general sense, in learning a child or a person acting according to his natural instincts comes in contact with new environment. He brings about change in his behaviour when he does not achieve success in his activity. He keeps on bringing change in his behaviour till he achieves success. He learns that behaviour through which he achieves success. This process is called learning process. Thus it can be said, "Learning is the progressive development of natural behaviour of a boy or a person."

Example–A boy gets excited when he watches a fire. He tries to capture or touch the flame. His effort to touch the flame/fire is his natural behaviour, but when he feels pain due to the heat of fire, he draws back his hand. This action of drawing back/withdrawal is "Learning."

Definitions of Learning :

(1) Learning is a process. It is changed in skills of human behaviour resulting from experience.

–**Rousseav (1953)**
(2)	Learning is any change in behaviour, resulting from behaviour.	– **Bilford (1962)**
(3)	Learning is the modifications of our readymade behaviour due to experience.– **Colvin (1967)**
(4)	The ability to learn, that is to respond differently to situation because of a past experience to a situation.	–**Guthrie (1950)**
(5)	Learning is a change in the individual following upon changes in his environment. –**E. A. Peel (1968)**

Essence of the above definition, is that the development and change in behaviour of a person which occur in relation with the attainment of a certain objectives is called learning. Meaning of learning is the development of reconciliation method for certain problem, which provides new techniques for completing the work. Learning is such a process through which consciousness is fostered, meaning is elaborated, decisions are taken and work is completed.

Learning Process–Learning is a process in which a person brings change in his behaviour through his experiences and capabilities. A person goes through a process in order to achieve experience and qualification.   Learning process is a complicated process. Learning process is fast. The main factors responsible for it are as follows:

1.	Motivation–In reality, motivation has an important place in learning process. Through many experiments, it has been proved that lack of motivation results in a person grasping partially the subject matter. An important role is played by necessity factor or need factor. Throughout life, one has to fulfil his needs. The instinct to fulfil his needs and requirements motivates a person and as a result of this motivation a person makes effort to achieve difficult objectives through these efforts one learns and through new experiences learns a lot. Impediments or obstruction in the path of achieving objectives results in his behavioural change. On this basis, we can say that in the learning process, motivation has great importance and various needs and requirements of a person result in motivating him.

2.	Stimulus, Response and Reinforcement–It will be incorrect to say that only motivation has importance in learning process. In this process factors like stimulus, response, and reinforcement etc. are also important. Stimulation activates the motivation of a person. A person is very active when excitement/stimulation is high and he makes effort towards definite direction according to his motivation. He experiences the result of his attempts and if he feels or encounters difficulties in fulfilling his need, he attempts again vigorously. He makes an attempt with more zeal and then only his needs are satisfied.

3.	Feedback–In learning process feedback also plays an important role. In this state learner analyses himself or discusses with other person about the new information/knowledge acquired by him. He also analyses whether the work he is doing or performing is appropriate or not. If he finds it inappropriate, he tries to change the direction of his work. In this way, through feedback a person brings behavioural change in himself.

4.	Participation and Practice–It has been proved through many experiments that when a person actively participates in teaching process and also practices then this (teaching process) works faster and is more effective During practice a person brings change in his behaviour. A person learns a lot through behavioural change.

5.	Application of Knowledge–Utility of any new information adopted by a person should be evaluated. A person evaluates the utility of the new knowledge learned by him in his particular situation. If it is inappropriate for his particular condition he once again brings

change in his behaviour and needs the application of new knowledge. This way he acquires new knowledge.

6. Perception–This factor is most important among all the other factors. In this application of whatever a person has learned depends upon his perception, for example, we are aware of that knife which is used for cutting things but we also use it for opening cap of a bottle, turning screws, and for removing paints from board. Toys for children are made in different shape and size. This also implies the importance of perception and experience. Perceptual skills help us in understanding the subject or main idea, which are derived from the following four points we perceive when we–

(i). Recognise–Objectives/aims; voice; taste; smell and expression.
(ii). Discriminate–Among colours; obtained facts etc.
(iii). Relate–Aggregate of things; different interesting objectives; implementation.
(iv). Select–What is interesting for us, or on whom to lay special attention/emphasis.

In reality learning process is an arduous process, which a person undergoes in order to acquire knowledge There is change in the behaviour of every man after he goes through this process. In a laboratory, all the students perform experiments together and receive instructions by the teacher but then also there is difference in performance/efficiency of every student. Many factors are responsible for it i.e., motivation, work efficiency, prior experience, capability, qualification, attitude etc. Difference in learning capacity among people is natural.

Ten Simple Formula of Learning :
(1) Learning capacity of a person should be ascertained. Learning materials should be provided to him according to his capability.
(2) Subject material to be thought should be presented in exact sequence. This way Learning process can be accelerated.
(3) Problems occurring during learning process should be told to the person. In this way a person will be able to bring change in his behaviour.

(4) There is a possibility of forgetting new learned subject.
(5) Revision of the subject should be done frequently.
(6) Learning process gets accelerated if result of new information provided for learning is made known.
(7) Active participation should be ensured during learning.
(8) Circumstances, which influenced the prior behaviour of a person, are conducive to learning something new.
(9) New information should be in accordance with the need of a person.
(10) It is necessary to bring change in behaviour in order to learn something new.

Types of Learning :
1. Learning by trial and error–The main characteristic of this type of learning is that the relation between means and ends is not clear but is negligible and superficial. This tendency is generally found in animals. They repeat various actions and reactions and then accept only those, which are beneficial through their selection criteria. It is not possible to learn anything at once. Learning process is slow and step-by-step process. Method of learning by trial and error is not an obsolete method but a reform method. Those efforts, which are successful, will be repeated and unsuccessful efforts will either

be abandoned or reformed. This way a person will be able to solve his problem through successful and reformed efforts.

2. Learning by insight–In this theory, it is believed that insight is necessary for all learning processes. It is essentially required, when we face difficulties and are unable to comprehend the crisis completely. Only through "Trial and Error" method, a person is unable to solve/remove obstacles, for this he needs insight as well.

A teacher should keep in mind the following points in order to encourage learning by insight.

   (i) Complete appraisal of a problem.

   (ii) Learning mobility.
   (iii) Intellectual and emotional competency.

   (iv) Sufficient help by the teacher for achieving success.

3. Learning by observation–Observation implies concentration of the mind on the subject. In order to derive benefits of observation method in the field of education, the process of learning should start from visual objects because it helps the student to concentrate on it. They are unable to concentrate on objects having no figure or form. In future, through practice they will be able to acquire knowledge from them.

4. Learning by imitation–People imitate only those persons who are superior to them and excel in their field. Sometimes a person imitates purposely and sometimes unconsciously. In learning process, we imitate intentionally with full awareness, i.e., acquiring excellence in writing, in making picture etc.

Principles of Learning : There are various principles of learning. Hilgard (1964) has defined ten principles of learning in his book "Theories of Learning". In this which principle is good and which is bad is too difficult to point out. Principle is never good or bad, they are only most beneficial or less beneficial for a particular work. Main theories/principles of learning are given below:

1. Theory of connecting–E.L. Thorndike has described this theory in his book "Foundation of Learning" in the year 1913, in this way: "Learning is connecting. The mind is man's connection system." This relation is not only found between excitement and reaction, it also exits between physical and mental activity. "In learning process, the relation of any mental activity with physical activity, mental activity with mental activity, or physical activity with physical activity is necessary".

2. Theory of learning by conditioning–Pavlov, Baeyschler and Watson have propounded this theory. According to Ladell, "In a conditioned reflex the natural stimulus to action has been replaced by an otherwise in effective stimulus which has become effective through association." In this theory relation between certain reaction to a certain situation is established, though there had been no prior relation among them.

3. Theory of insight–According to the progenitor of this theory, the famous psychologist Cohler, a person first of all tries to understand the new situation and then acts accordingly. He does not react all of a sudden but his acts are aim-oriented. This way he establishes relation with the environment after great deliberation. Understanding of the whole environment by a person shows his insight into life. In German language, this psychology is called "Gestalt". It has been defined by Good as– "Insight is a matter of

observing new relationship of creating a new sensory organisation or meaningful pattern".

4.   Theory of reinforcement–C.L. Hull, a famous American psychologist, is the father of this theory. Thorndike and Pavlov's theory form the basis of his theory. He has defined his theory in his famous book "Principles of Behaviour" in this way– "*Learning takes place through a process of a need reduction.*" The basis of learning is not trial and error or conditioning. A person is eager to learn that theory which he perceives as capable of fulfilling his needs. Characteristics of this theory is as follows:

   (i)   This theory is comparatively better than the other theory. According to Spinner– "This theory is the best among all the other theories of learning presented till now."

   (ii)   This theory lays emphasis on the reinforcement of needs. Therefore through this theory students can be encouraged.

   (iii)   According to Hull, there are two types of reinforcement–primary and secondary. When a child feels hungry his primary need is to get food. After getting content with food his other needs get activated and this is his secondary need.

   (iv)   This theory is theory of stimulation.

Guiding Principles of Learning : There are certain basic principles of learning, which must be taken into consideration in order to make learning effective. These are:

1. Learning should be meaningful and satisfying. Motivation is necessary for effective learning.
2. The learner must find his behaviour unsatisfactory to himself. Before learning the learner must feel difficulty due to ignorance or in-ability to do a piece of work. He will, otherwise, not be interested in learning.
3. Learning is growth like and continuous: Teaching should be based on maturation level of learner.
4. Learning takes place best in an atmosphere of incentive and opportunity, not in an atmosphere of punishment.
5. Frequently the learner needs guidance or supervision in the new behaviour, he tries.
6. The learner must have opportunities to practice the new behaviour.
7. The learner learns best if:
   a.   The learners are interested in learning,
   b.   The learner's needs are satisfied by learning,
   c.   The learners are provided with active participation in the learning process,
   d.   Thinking is stimulated on the part of learner, and
   e.   The teacher enforces desirable behaviour in the teaching.
8. The learner must derive satisfaction in the desired behaviour. The learning should be satisfying and attainable by the learner in his own situation.
9. Helping the learner acquire standard of success that for him are high but the standard of learning should not be too high and too low.
10. Learning is a self-active process; learning depends upon the extent to which or how actively the learner participates.
11. Evaluation is essential in the learning process. To determine how far he has succeeded. How well he is doing, what are shortfalls. Means to know the progress (either by test or what so ever method) is essential.

12. The variation in learning abilities must be taken into account. It is highly essential as the learning abilities vary among individuals.

Factors Influencing Learning Process : Learning process is a life long process. A person or a child learns from both formal and informal methods. Sometimes learning process is fast and sometimes slow. Desired changes can be brought about by fast learning process and good conditions are required for effective learning. Factors influencing learning process are enumerated ahead:

(A) Psychological Factors**:** There are certain psychological factors, which either enhance the learning process or retard it. Mental peace enables a person to learn quickly whereas mental tension acts as a hindrance in learning process. Main psychological factors influencing the learning process are as follows:

1. Motivation– Learning depends upon Motivation. A highly motivated child will learn more and very easily even though he may be lacking in qualification and capability. On the other hand a child will not be able to learn anything new if he is not motivated to do so even though he may be highly qualified and capable. Motivation thus influences the learning process and it has important place in learning process.

2. Attitude–A child has both positive and negative attitudes. A child with positive attitude will learn easily and with negative attitude he will learn nothing. Therefore, positive attitude for learning/education should be developed among children since childhood.

3. Individual differences–Two children are never alike. Difference in physical, mental, social and emotional strength among children are found. Therefore, arrangements for their learning should be according to their strength and capability. Different subjects are included in the syllabus in order to fulfil this objective and individual differences form the basis for it. Those schools, which do not keep this characteristic in mind, are called non-psychological

4. Instincts–A child acquires instincts since birth. Some instincts are conducive to learning process while others are just opposite. A boy learns quickly if instincts conducive to learning process are in a great number otherwise the child learns slowly. These instincts are inborn/innate qualities or power, which influences the behaviour of a person. There are three aspects of it–cognitive, emotional and action oriented i.e., capability, self presentation, determination, desire to live, self respect, curiosity, aspiration for a child, creativity and gregariousness etc.

(B) Physical Factors**:** Favourable physical environment is necessary for learning the subject matter. Peaceful environment of a class, motivating environment of a school etc. are favourable physical factors, which affect the learning process. Favourable factors are:

1. Location of school–It influences the learning process. If a school is located in a clean peaceful environment and away from the crowdie city then it is favourable for learning.

2. Class arrangement–Success or failure of learning process depends upon class arrangement. The condition will be conducive to learning process if the classroom has a clean and clear blackboard and comfortable seating arrangement.

3. Text-books–These are also an essential part of learning process. It is easy to learn if the students and library have new edition books.

4. Facility for entertainment–If the school organises competition, provides guidance to the students and has adequate facility for games then it positively influences and affects the learning process. This type of environment enhances the learning process.

(C) Social Factors: Social environment also influences the learning process. This includes mutual relationship among students, among teachers and between teachers and students. Cordial relationship is favourable for learning process whereas tense relationship is unfavourable.

1. Discipline–Discipline has an important contribution in learning process. Learning process is quick in the class of those teachers who maintain discipline in class because discipline helps in maintaining control over our sense organs.

2. Teacher-student relation–In school or a class teacher-student relationship should be impartial, cordial and pure. Tension hinders the learning process. A teacher should pay attention to personal problem of students and also try to solve them. This develops trust for the teacher among the students and they get encouraged to learn new topics taught by the teacher.

3. Social activities– Teachers and officials should try to inculcate the social qualities like cooperation, sympathy, patience, coordination etc. among the students because these qualities help the student to grasp more knowledge.

4. Mutual relation among the students–The feeling of love, affection, cooperation and trust among students give birth to favourable condition for learning process. Emergence of rival groups in college affect the learning process adversely.

Abilities of Learners: Learner should have four types of qualities in order to be successful:

(1) He should be capable of accepting new experience with open heart and without any bias or prejudice.

(2) He should be capable of deliberating upon his experience regarding various new subjects.

(3) He should be able to assimilate his experience and expound a new theory.

(4) He should be able to take decision and solve problems through the principles taught to him or learned by him.

Implication of Teaching – Learning to Adoption: In completing this process of adoption, the extension workers have to face many problems, out of which some main problems are as follows:

(i) What is known and what is done by most farmers and why?

(ii) From where do most farmers get their new idea?

(iii) In some villages, people accept new idea quickly and in others, very slowly. why?

(iv) Why do some farmers accept new ideas and put them into practice more quickly in comparison to others?

(v) Why some new technological knowledge is accepted readily with less effort, while others are accepted only after years of hard work.

Adoption Process- "Adoption process is the mental process through which an individual passes from hearing about an innovation to final adoption." - Rogers, E.M.(1967)

In a particular field when any person adopts new ideas, later, in that field, other people accept those ideas also. This process of accepting these ideas by other people is called the diffusion. When any person accepts new ideas, before accepting them the person passes mentally through different stages. This mental process is known as adoption process.

Stages of Adoption Process: There are mainly five stages of the adoption process, which are accepted by all the extension scientists but besides these five main stages the extension scientists

have laid emphasis on told three stages (will, stability, satisfaction) also. The main five stages are the following:

1. Awareness-At this stage an individual becomes aware of some new idea for he first time. For example, if the farmer goes to the market of his city for the sale of his agricultural production and there he sees the hoardings at the entrance gate of that market about the new variety of wheat, then the farmer comes to know about the new variety. Here, when the farmer saw the hoardings, he reads only the name of the new variety, and from where it can be obtained. At this stage, the farmer does not get the full details about the new variety or any new idea.

2. Interest- If the product or idea is useful and beneficial, than a person gets interested and tries to gather maximum information regarding that product or idea. This stage is also very important, if the farmer is not interested, however the useful and valuable idea may be from economic point of view, he will not try to obtain it. Therefore, if the farmer has interest in new idea, he will acquire more and more or the maximum knowledge about the new idea.

3. Evaluation- At this stage a man evaluates the subject of interest and useful object or idea. He makes a mental analysis of a new idea or practice and estimates whether the new approach will be beneficial or not from economic point of view. In such condition when he gets assured that it will be beneficial for him or it will be fruitful for him economically, he takes steps to achieve that particular idea/practice.

4. Trial- As we have discussed about the third stage, that when a person, after evaluating in his mind the particular thing, decides that it will be beneficial, then only he makes small scale experiment, and considers the ways to do, how much to do and how to make it beneficial etc. With these ideas, he makes a small-scale trial of that idea/practice.
    For example, when an individual comes to know about the new variety, he will experiment it on the small field; he will not like to take risk by experimenting on the entire field.

5. Adoption- A person will use any idea only after experimenting and evaluating and when he is ensured that its use will definitely be beneficial to him. For example, when he is certain after acquiring the entire knowledge of the production capacity of the new breed of seed and the experiment methods etc, and that it is beneficial for him economically, he will use it on large scale.

Communication Sources and Stages of Adoption : Adoption of modern agriculture technology depends upon the effective communication media to which the recipients, audience or the target group i.e. the consumer of message, the farmers, are generally exposed directly or indirectly. There have been number of communication sources and the media engaged in the communication of modern agricultural technology to the farming community. The farmers when exposed to different sources/media, they usually try to absorb the technology only on selective basis depending upon host of variables. Research conducted in the field of extension education in the area of adoption reveals that an individual's decision about adopting or rejecting an innovation is usually not an instantaneous act. It is rather a process that occurs over a period of time and consists of a series of actions and decisions on the part of a farmer and continued efforts of influencing the decisions by the extension agencies. This process has been depicted in terms of various models as discussed earlier in this chapter.

A tentative generalization based upon the findings of research conducted in the adoption and diffusion of innovations could be made as under:

a. **Awareness Stage** - Change agent and mass media
b. Interest Stage - Formal sources (Extension Agency)
c. Evaluation **Stage** - Fellow farmers and neighbours
d. Trial Stage - Expert and experienced farmers
e. Adoption Stage - Self-experience gained at the trial stage

Diffusion and Adoption of Innovations: Use of adoption and diffusion process: It is of prime importance for the extension education agency to know that why certain innovations are accepted by the people and at the same time adopted by them where as others are rejected or discontinued after adoption by them. Research alone cannot serve the solution of problems but it is essential that the findings of the research are accepted and adopted in the practical situation.

Diffusion Process**:** It refers to the spread of new ideas from the source of origin to the ultimate users. In case of agriculture, "it is the process by which new farm practices or ideas are communicated from source of their origin that is research scientists to the farming community."

A major difference between the diffusion process and adoption process is that diffusion occurs between persons while adoption is an individual matter. "The adoption process deals with adoptions of a new idea by one individual while the diffusion process deals with spread of new ideas in a social system or with the spread of innovation between systems or societies.

Elements of Diffusion: There are four crucial elements in the diffusion of innovations:

1. Innovation: "An innovation is an idea perceived as new by the individual." Whether or not an idea is "Objectively" new as measured by the amount of time elapsed (passed) since its first use or discovery. It is the newness of the idea to the individual that determines his reaction to it, for example social movement and clothing etc".

2.Communication: The communication is the process of human interaction in which one person communicates a new idea to another person. Diffusion is the process by which an innovation spreads.

 "The diffusion process is the spread of a new idea from its source of invention or creation to its ultimate users or adopters."

Thus the diffusion process consists of (i) a new idea, (ii) an individual 'A' who knows about the innovation, and (iii) an individual B who does not know yet about the innovation.

3. Social System: "A social system is defined as a population of individuals who are functionally differentiated and engaged in collective problem solving behaviour." The members of social system are individuals, although these individuals may represent informal groups, firms, or schools. The social system may consist of all the farmers in the country or the members of an aborigine tribe.

There is continuum type of adoption decision ranging from individual choice to group decision:

(i) An individual regardless of the decisions of other individuals adopts many innovations in a social system.

(ii) Innovations requiring prior acceptance by the majority of the social systems members before individual adoption decision can be made. An individual may wish to adopt, but he cannot do so until others join him. Example, Ariel spray of pesticides.

(iii) Some ideas are adopted by a group decision that forces acceptance even upon those who are unwilling example, adding chlorine to village wells.

4. Overtime : Overtime is the time required to adopt from its origin.

Attributes of Innovation affecting Adoption : Rogers and Shoemaker (1971) have identified 5 basic attributes of innovations, which contribute to different rate of adoption by the receivers. It is emphasized that it is the receiver's perceptions of the attributes of innovations, not the attributes as classified by experts of change agents, which affect their rate of adoption. The five attributes are:

1.   Relative Advantages**:** It is the degree to which an innovation is perceived as better than the idea it supersedes. The degree of relative advantage may be measured in economic terms, but often-social prestige factors, convenience, and satisfaction are also important components.
2.   Compatibility: It is the degree to which an innovation is perceived as being consistent with the existing values, past experiences, and needs of the receivers. An idea that is not compatible with the prevalent values and norms of the social system will not be adopted as rapidly as an innovation that is compatible.
3.   Complexity: It is the degree to which an innovation is perceived as difficult to understand and use. Most members of social system readily understand some innovations; other is not and will be adopted more slowly. In general these new ideas requiring little additional learning investment on the part of the receiver will be adopted more rapidly than innovations requiring the adopter to develop new skills and understandings.
4.   Trialability: It is the degree to which an innovation may be experimented with in a limited basis. New ideas, which can be tried on the instalment plan, will generally be adopted more quickly than innovations, which are not divisible.
5.   Absorbability**:** It is the degree to which the results of an innovation are visible to others. The easier it is for an individual to "see" the results of an innovation, the more likely he is to adopt it.

The 5 attributes just described are not a complete list, but they are the most important characteristics of innovations, past research indicates, in explaining rate of adoption.

Adopter Categories

All the individuals do not adopt an innovation at the same time. Hence categories are the classification of members of a social system on the basis of innovativeness.
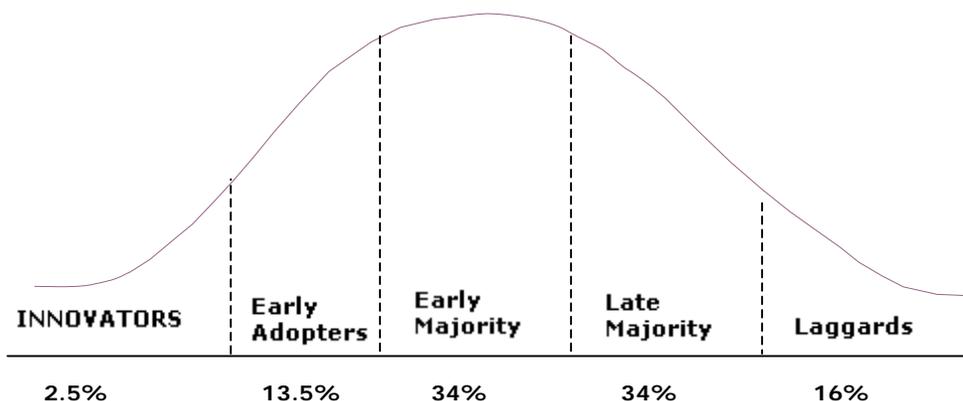

Figure: Adopter Categorization on the basis of Innovativeness

All farmers do not adopt a new practice at the same time. Farmers may be classified in to five adopter categories according to the relative time at which they adopt a new practice. Diffusion of a new practice usually requires several years. In the first year, a few farmers adopt it - then in a short span of time, a large number try it and finally the reminder accept it. This represents the typical pattern. The distribution of farmers adopting a new idea by year of adoption generally has the scope of the normal curve. This characteristic on the diffusion curve permits distributing farmers into adopter categories as depicted above in figure.

1. Innovators: Venturesome (risky), they are the first farmers to adopt a new idea. They are eager to try new ideas. The major value of the innovator is venturesome ness. He must desire the hazards, the rash, the daring and the risky.

2. Early Adopters: They are more integrated part of the local social system than are the innovators. They have the greatest opinion leadership. The early adopter is considered to be "the man to check with" before using a new idea. He is respected by his peruse. These follow the motto: "Be not the first by which new is tried, nor the last to lay the old aside." When compact with the average farmers, the early adopters have slightly higher education, are a little younger in age, and participate more informal organizations. Their social status is high and they have many informal contacts with in the community. They are looked upon as good source of advice. They have more contact with extension workers.

3. Early Majority: Deliberate – These adopt innovations a little earlier than the average members of a social system. Participation by the early majority in activities with their peers is high but leadership positions are rarely held. The early majority may deliberate for some time before completely adopting a new idea. They follow with deliberate willingness but seldom lead. In most respect they are typical of average farmers, their education, farming experience and contacts with extension worker are slightly higher than that of the average farmers.

4. Late Majority: These adopt new ideas just after the average member of a social system and have about the same characteristics as the early majority but to a slightly lesser degree. Late majority do not adopt until a majority of other in their system have done so. They can be convinced of the utility of new ideas but the pressure of peers is necessary to motivate adoption.

5. Laggards: Laggards are the last to adopt new ideas. They are the oldest, have least education, few social contacts and participation in formal organizations. They resist new practices until everyone else in the community has adopted them. They believe in agricultural magic and cling to traditional attitudes.

Characteristics of Adopter Categories: The Characters of different adopter categories have been presented below:

A. Personal Characteristics
    (i) Age – Earlier adoptions are younger in age than later adopters.
    (ii) Social Status – Earlier adopters have higher social status.
    (iii)Financial Position - Earlier adopters have higher social status.
    (iv)Specialization – Earlier adopters have more specialized operations than later.
    (v) Mental Ability – Earlier adopters have a type of mental ability different from that of later.
B. Communication Behaviour - Information sources vary on the basis of:
    (i) Stages in the adoption process.
    (ii) Characteristics of innovation.
    (iii)Adopter category.

Differences of Information:

(i) Impersonal Sources – More important than personal sources for relatively early adopters.
(ii) Cosmopolite Sources – More important than locality sources for early adoption.
(iii)Closer Contact – Early adopters utilizing source that are in closer contact with the origin of new idea than later adopters.
(iv)More Sources – Earlier adopters utilize a greater number of different information sources than do later adopters.

C. Social Relationship

(i) Cosmo Politeness – Earlier adopters are more cosmopolite than later.
(ii) Opinion Leadership – Earlier adopters have more opinion leadership than later adoption.

Barriers to the Flow of Ideas in a Social System

(i) Social status as a barrier – extreme differences with social status between a communicator and a receiver may impede communication and slow up the trickledown of new ideas.
(ii) **Innovativeness as a barrier** – Differences in innovativeness between individuals are a more important barrier to the flow of ideas in a social system. Where the norms are modern than where they are traditional.
(iii)Followers and non-followers – One measure of the importance of barriers to diffusion in a social system is the percentage of the members who are followers, that is, who communicate directly with the opinion leaders.

Factors Effecting Adoption of Innovations: There are number of research studies conducted in the field of Extension Education on the Factors Effecting the Adoption of Innovations and consequently number of factors have been found to be related positively with the adoption of innovations. These have been presented below:

a. Nature of Innovation: (1)Relative Advantages (2)Compatibility with the farmer's overall farming system (3)Complexity (4)Trial ability (5) Absorbability (6) Productivity (7)Stability (8) Sustainability (9) Economic Viability (10)Operational Feasibility 911) Matching Farmer's Needs (12)Marketability

b. Other factors Influencing Adoption of Innovations: Factors other than the nature of Innovations, which are found highly significant on the basis of past researches in the field of adoption of innovations, are presented in table. The factors mentioned in the table are not a complete list, but they are the most important factors, past researches indicate in contributing the adoption of innovations.

Factors Influencing Adoption of Innovations

PERSONAL FACTORS	SOCIO – ECONOMIC FACTORS	PSYCHOLOGICAL FACTORS	OTHER FACTORS
Age	Caste	Aspirations	Culture
Income	Education	Risk orientation	Values
Extension – participation	Social – participation	Economic motivation	Farm size
Knowledge	Socio – economic status	Cosmopolite	Farm income

Local leadership	Formal groups	Attitudes	Farm Power

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