

Concepts of Education

1. **Education:** Word “Education” is derived from different two words viz. **Latin** word *EDUCARE*, which means to bring up physically or mentally and **French** word *EDUCERE*, which means leading out or leading forth.
2. **Education** is the process of bringing desirable changes in human behaviour in terms of knowledge, skill and attitude.
3. **Knowledge (Knowing behaviour):** Knowledge is understood information possessed by an individual.
4. **Attitude (Feeling behaviour):** It means feelings of an individual towards or against something; it may be a person, object, institution, thought or idea.
5. **Skill (Doing Behaviour):** Skill is the competency in using knowledge efficacy. There are **two types** of skill, (1) Mental skill and (2) Manual skill or Physical skill.

Types of Education

1. **Formal education:** A formal education is the process of training and developing people in knowledge, skills, mind and character in a structured form (within four walls) and certified programmes.
It includes basic learning, elementary and high school, and post-secondary school (college, trades or technical school, or university).
2. **Informal education:** It is the truly lifelong process whereby every individual acquires attitudes, values, skills and knowledge from daily experience. **Here learning takes places from family, friends, peer groups, market place, training centers, the media and other influences in a person’s environment.** Eg. **Son of carpenter learns carpentry from his father while helping his father in his work.**
3. **Non-formal education:** It is well organized, systematic educational activity which takes place outside the formal system in order to provide certain selected type of learning to the selected group of individuals which includes adults, youth and women. Eg. **Training provided to the farmers by extension workers.**

Differences between Non formal Education and Formal Education

Non formal Education	Formal Education
It is also known as extension education, non-formal education, adult education, end-less education, out of the four walls education, continues education and adult education.	It is also known as within four walls education, primary education, school education, and college education and structured education.

Education that we get out of schools and colleges. It is informal way to educate people, where rigid formalities are not necessary to follow all the times.	Education that we get in schools and colleges. It is way to educate learners following all the formalities.
In extension education there is no fixed curriculum. Its <u>flexibility or changeable</u> depending on the needs of the learners.	In this type of education there is a fixed or pre-decided curriculum/content so there are rare chances to change it.
The learners/ audiences are heterogeneous with different goals. They are varying in age, education, needs, problems, interest and other characteristics.	The learners/ audience are homogeneous in age, education, experience etc. and have common goals.
Teaching is horizontal and mostly need based and problem oriented. Extension workers and farmers exchange problems and solutions with each other horizontally. It is not possible all the times that teacher is superior to learners.	Teaching is vertical and curriculum centered. The teacher teaches and learners receive vertically. It is possible most of the times that teacher is superior to learners.
Extension education starts from practical field problems and goes up to solutions to create theoretical understanding.	Formal education starts from a theoretical or conceptual framework and leads to practical or actual fieldwork.
Final power of teaching and learning remains with learners. Freedom of choice of subject matter is left to the learners. Learners are not bound to learn. It is learner centered education.	Final power of teaching and learning remains with teachers. Strictly institutional norms and formalities are followed viz., fixed period, fixed books, examination.
This education is not class oriented, subject-centered and degree-oriented.	This education is of a specialized nature. It is class, subject and degree oriented.
Teaching is through extension personals and also through local leaders.	Teaching is only through instructors
It is continuous process through - out life of individual.	At certain level, there is end of education. It may end with school, college or University education.
The physical facilities like classroom, laboratory and benches are not required. Education is given at farm, home or wherever learner wants to learn.	Required physical facilities like classroom, laboratory, benches, and fans etc. for lectures. Fixed classroom is required.
Participation is wholly voluntary , free education in matter of learner's choice.	Attendance is largely compulsory i.e. no free education according to his choice.
It is given using mass media, farm and home visit, result and method demonstration, training	Mainly lecture method is used to teach learners.
It is more practical and problem solving.	It is more theoretical and subject oriented.

Concept of Extension Education

The word Extension is derived from two **Latin** words *Ex* and *Tensio*. *Ex* means out and *Tensio* means stretch or spread and, thus meaning of Extension is spread out or stretch out knowledge which is beyond the capacity of school education.

1. It is the out-of-school process aimed at bringing desirable changes in the knowledge, skill and attitude of farmers, farmwomen, rural adults and youths in order to help them to solve their problems (S. K. Wagmare, 1980).
2. According to Leagans J.P.: Extension education is the process of teaching rural people how to live better by learning ways that improve their farm, home and community institutions.

He also defined extension education as 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

3. According to Kelsey and Hearne (1963): It is out of school system of education in which young and adult people learn by doing.
4. According to Ensminger (1967): Extension is an education and its purpose is to change the attitude and practices of people with whom the work is done.

Components of Extension: Activity of extension can be made possible by its three important broad components.

These components are Extension Education, Extension Service and Extension Work.

1. **Extension Education:** Education is given to prepare and develop experts for extension jobs. **The State Agricultural Universities (SAUs) and Colleges, ICAR and training institutes generally perform the role of extension education.**
2. **Extension Service:** It is input and service oriented field professional activities done to transfer technology from research station to farmers' fields and transferring farmers' problems to research stations. **The work done by government extension agencies like Department of Agriculture, Animal Husbandry, Forestry, Fishery etc. are the examples of extension service.**
3. **Extension Work:** Many extension activities are done with the feelings of altruism, selflessness or humanity in helping people to help themselves. **The work done by Non-Government Organization (NGOs) or individuals with an inspiration of unselfishness is an example of extension work.**

Objectives of Extension Education:

The general objective of the extension education is to raise the standard of living of the farming community and rural people by helping them in using their resources like land, labors, capital, water and livestock in the right and efficient way to increase their productivity.

The fundamental or main or broad objective of extension education is to bring about all-round development in the life of people.

The specific objectives of extension education are as under:

1. To provide the occupational knowledge of farmers to increase their income.
2. To encourage farmer to be self sufficient in food and other requirements.
3. To help the members of farm family to know, learn and adopt better about the world in which they live.
4. To open-up new opportunities for rural people
5. To develop talents and leadership quality of rural people.
6. To build confidence among rural people and show them better opportunities for their occupation.

Agricultural Extension:

Agricultural extension can be defined as an ongoing process of providing useful information to the farmers and rural people to acquire them knowledge, skill and attitude to utilise effectively these information or technology to improve quality and productivity of their farm, home and institutions.

It makes available to the rural villages, scientific and factual information and training and guidance for the solution of problems of agriculture and rural life.

Agricultural extension is a bridge that fills the gap between agricultural research stations on the one hand and the farming population on the other by establishing a suitable teaching organization at various levels of administration.

Principles of Extension Education

Principle: The meaning of principle is fundamental truth or law or rules or regulation one has to follow as the basis of some actions.

To achieve expected results through any action, action should be carried out based on sound principles. It is necessary for extension worker to acquire a comprehensive knowledge of the principles of extension.

1. Principle of interest and need: Because extension education is informal education, educationists cannot use compulsion on learners to learn or participate in the educational programme. In this situation if educationist carries out educational programme considering the need and interest of the farmers, participation of the farmers in the programme will be possible. Thus, extension work must be based on the needs and interests of the people. These needs and

interests differ from individual to individual, from village to village, from block to block, and from state to state and therefore, there cannot be one common programme for all people.

2. Principle of cultural difference: Extension work should be based on the cultural background of the people with whom the work is done. Improvement can only begin from the level of the people where they are. This means that the extension worker should know the level of the knowledge and skills of the people, methods and tools used by them, their customs, traditions, beliefs, values and norms before starting the extension programme.

3. Principle of cultural change: The culture of the people undergoes change while doing extension work. The change is necessary for growth and development of society. There may be a difference between the situation at the time of starting the programme and today's situation. Therefore, with growth and development of social status, the extension work should also be changed to meet the cultural changes among the people.

4. Principle of participation: Extension helps people to help themselves. Good extension work is directed towards assisting rural families to work out their own problems rather than giving them ready-made solutions. Actual participation and experience of people in these programmes creates self-confidence in them and also they learn more by doing. The high level of interest among the farmers towards any new efforts can be developed if they are involved from planning to evaluation stages of any extension programme.

5. Principle of adaptability and flexibility: People differ from each other, one group differs from another group and conditions also differ from place to place. An extension programme should be flexible, so that necessary changes can be made whenever needed to meet the varying conditions. Thus, when working with people we should not go with our pre-decided content but after knowing their need and problems only content of programmes should be decided. Extension workers must permit flexibility.

6. The grass roots principle of organization: A group of rural people in local community should sponsor extension work. The programme should fit in with the local conditions. The aim of organizing the local group is to demonstrate the value of the new practices or programmes so that more and more people can participate.

7. The leadership principle: Extension work is based on the full utilization of local leadership. The selection and training of local leaders to enable them to help to carry out extension work is essential to the success of the programme. People have more faith in local leaders and they should be used to put across a new idea so that it is accepted with the least resistance.

8. The whole-family principle: Extension work will have a better chance of success if the extension workers have a whole-family approach, instead of piecemeal approach or separate and non-integrated approach. Extension work should be therefore for the whole family, i.e. for male, female and the youth. Each family member of the farmer has their impact in different manners. Involvement of all family members in any new activity provides an opportunity to head of the family to take quick decisions.

9. Principle of co-operation: Extension is a co-operative venture. It is a joint democratic enterprise in which rural people co-operate with their village, block and state officials to pursue a common cause. It has been experience of many countries that people become dynamic if they are permitted to take decision concerning their own affairs, exercise responsibility for, and are helped to carry out projects in their own village. Most members of the village community will willingly cooperate in carrying out a project that they helped to decide to undertake. People should involve in planning programmes, determining objectives, setting up plan of work, carrying out actions and evaluating results. The participation and co-operation of people are of fundamental importance for the success of any educational behavior. This also develops leadership in the village and increases the confidence of the people. By participation people feel that it is their own programme.

10. Principle of satisfaction: The end product of the effort of extension teaching is the satisfaction that comes to the farmer, his wife or youngsters as the result of solving a problem, meeting a need, acquiring a new skill or some other changes in behavior. Satisfaction is the key to success in extension work. A satisfied customer is the best advertisement. Thus, satisfaction of the people is very essential in extension work. When a person receives satisfaction as a result of his participation in an extension programme, he seeks further help from an extension agency. This promotes the growth of extension work. The success of the extension work lies in the satisfaction of the people. If participating in the programme does not satisfy the people will not participate in the future.

11. The evaluation principle: Extension is based upon the methods of science and it needs constant evaluation. The effectiveness of the work should be measured in terms of the changes brought about in the knowledge, skill, attitude and adoption behaviour of the people but not merely in terms of achievement of physical targets. The evaluation is the mirror of any extension programme. It gives understanding about degree of success and at the same time base to reformulate next efforts.

12. Principle of applied science: Applied agricultural science is not a one-way process. It does not only give technology but at the same time it also collects problem of the farmers to bring to the notice of the scientists. Two-way approach helps scientist to do the necessary changes in technology to make it adoptable.

13. Principle of democratic approach: Extension work should try to create democratic impression among the farmers while working with them. It can be done through giving opportunity to the farmers to discuss and suggest their feelings. Facts about a situation should be shared with people. All possible alternative solutions should be placed before the participants and their merits are highlighted through mutual discussion. Ultimately, the people should left free to take their own decision.

14. Principle of Learning by Doing: In extension work, the farmers should be encouraged to learn new things by doing and by direct participation. They must be a part of practice the new ideas. It helps in developing the confidence to use the new method in future.

15. Principle of trained specialists: It is very complicated for extension worker to keep himself with all the new latest findings of research and all branches of science he has deal with in his day-to-day activities. To guide farmers in an effective manner he should always take help of well-trained specialists. This kind of involvement of various specialists will clear all the doubts of the farmers in a methodical manner.

16. Principle of bringing variation by the use of extension teaching methods: Extension workers should use proper extension teaching methods while educating the farmers. A combination of a number of suitable extension methods leads to the higher success in the adoption and diffusion of innovations and technology among the people as compared to only lecture method. Different methods must be used under different situations. No single extension method is effective under all conditions e.g. reading material for those who can read, radio programme for those who have radios, puppets for those who believe in traditional way of learning.

17. Principle of gradual efforts: Any extension programmes should be started from where people are. After knowing their existing level of knowledge, interest, availability of inputs and adoptability, any programme should be matched up and initiated.

18. Extension education in line with the national policies: For the sustainable results, any programmes should be organized looking to the state and national policy. Thus, any extension work should be based on some working principles. The knowledge of these principles is necessary for an extension worker to get desired results.

Extension Programme planning

Programme: The programme is a statement of situation, objectives, problems and solutions. It is relatively permanent but requires constant revision. It forms the basis for extension plans.

Planning: Planning is a process of preparing systematic statement of the line of actions to achieve decided objectives based on needs and resources.

Programme Planning: Programme planning is a process of working with rural people in an effort to recognize the problems and determine possible solutions.

Project: Project is an outline of procedure pertaining to some phase of extension work. Specification of work to be done. Procedure to be followed to accomplish the objective.

Problem: It is a condition that people after study, with or without outside help, have decided needs to be changed.

Aim: Aim is a broad objective. It is broad and generalized statements of directions with respect to given activities.

Objective: Objective is direction of movements. It is the direction towards which our efforts are directed. There are three levels of objective: Fundamental objective: All inclusive objective. Eg. People's participation in planning at grass root level. General objective: More definite social objective. Mandatory creation of Panchayati raj bodies at states. Working or specific objective: enactment of suitable laws relating to panchayet, holding panchayet election in time.

Goal: Goal is the distance in any given direction one expects to go during particular period of time.

Plan of work: it is an outline of activities so arranged as to enable efficient execution of programme. It is a statement of activities to be undertaken by an individual within a definite time. It indicates what is to be done, who will do it, how it is to be done, when it is to be done.

Calendar of work: It is plan of activities to be undertaken in a particular time sequence. It is chronological arrangement of activities.

Importance of Programme Planning:

1. It helps in avoiding future problems. A good planning always identifies and monitors future development that will have a major impact on performance of results.
2. It helps to get institutional support of local areas. For proper implementation of the plan, the involved person must be in substantial agreement with the plan. Planning will help to justify the appropriations by public bodies and to obtain support of the key personnel.
3. It gives reliable information about situation where we have to work. When and whatever information is required about the programme, situation and resources, it is easily available from the records.

4. It offers assistance. Programme planning makes sure about what is to be done and why, establishes objectives, gives direction for carrying out work and helps in evaluating results.
5. It prevents wastage of resources: Programme planning helps to reduce the wastage of time, money and resources and provides general efficiency. Optimum results can be accomplished under the prevailing circumstances and conditions.
6. It provides continuity to efforts. Programme planning presents continuity to the programme because of availability of plan in black and white.
7. It helps in leadership development: Development of leadership is one of the keys to success and planning is one of the best methods of developing leadership.
8. It helps to get local support: A programme planned with the cooperation of the people and based on their needs will get full support from them.
9. It minimizes conflict. Many conflicts like conflict of resources, personalities etc. may arise while executing a programme and these can be easily removed at planning stage. A good programme planning can avoid unnecessary conflicts.
10. It helps in fulfilling people's needs and wants.
11. Shares commitment and responsibilities.
12. Ensures a balanced but varied programme.
13. Provides opportunity each member to feel important in the community.
14. It gives specific job to each member involved in.
15. Ensures ample preparation time.
16. It provides maximum involvement.
17. It provides better communication.
18. It helps to learn how to cooperate and compromise.
19. It provides opportunity of learning how to plan.
20. It encourages members of society to look forward to meetings

STEPS OF PROGRAMME PLANNING

1. Assessing the situation: Sound plans are based on availability of relevant and reliable facts. This includes facts about the village people, physical conditions, existing farm and home practices, trends and outlook.

- **Basic information about village:** To study the situation one should collect information about village like population, total number of families, farm families, occupation of the villages, and facility of communication, transport, health, schooling and drinking water.
- **Information about farming:** like total area under cultivation, size of landholding, types of crops grown, cattle feeds, utilization of grassland, diseases and pests control, position of labour and financial position.
- **Information about characteristics of local people:** like their existing knowledge, skill, understanding, attitude, interest, education level, social participation, level of scientific orientation, ability etc.

After assembling the facts pertaining to local situation, it is important to analyze these facts to understand situation of the area where extension work has to be done.

2. Determination of objectives: Based on information on the situation and urgency of the problem, need and solution of the problems, extension worker decides objective to satisfy problems and needs of the community.

- The objectives are the direction of movement. The objectives can be of different types. **Fundamental objectives, General objectives and Specific or working objectives.**
- The objectives can also be classified on the basis of period of achievement like **Long term objectives:** (achievable in more than 10 years), **Medium term objectives** (achievable within the period of 3 to 5 years) and **Short term objectives** (achievable within one year or one season).
- The objectives must be well defined, clear and achievable, according to the need, interest and problems of the people.
- Objective should be SMART. Which means: S= Simple, M= Measurable, A= Attainable, R= Realistic and T= Time bound.

3. Identification of problem: At this stage the problems leading to a situation are selected to solve.

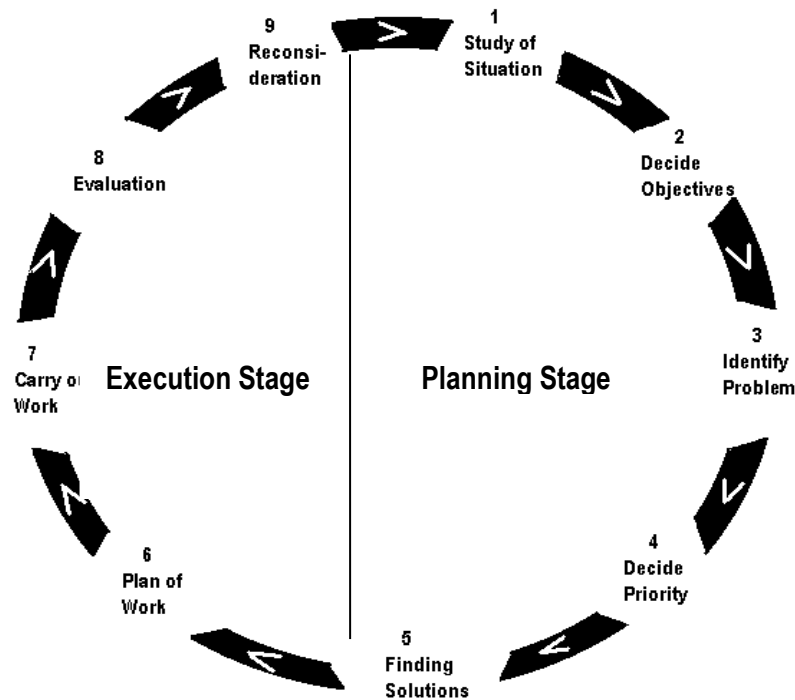
The problems are then classified according to their nature.

- **Many problems can be solved by the villagers with their own resources** e.g. Kaccha road preparation
- **The problems that can be solved using community cooperation** e.g. village cleanliness and
- **Problems that require assistance from outside sources because of need of high costs and technical knowledge** e.g. Locust control, construction of school building, creating irrigation facilities.

4. Decide priority of the problems to solve: As a result of the analysis of data the important gaps between 'what is' and 'what should be' are identified. The problems which need urgent solution should be identified to find its solutions.

- I. Drinking water
- II. Lighting
- III. Sanitation
- IV. Digging of pond
- V. Afforestation

5. Finding solution to problems: The extension worker has to consult their superiors keeping the villagers with them in finding out proper solutions of the problems.



Steps of Programme Planning

6. Developing the plan of work: In order to achieve the stated objectives planners should convert them in to goals. Conversion of objective in to goal includes time limit to achieve decided objectives.

- The means and methods attaining each objective are selected and the action plan in terms of the calendar of activities is developed.
- It includes planning of **WHAT (Subject)**, **WHICH (Major part of Subject)**, **WHEN (Year, Month, Date, Time)**, **WHERE (Place of activity)** and **HOW (By which method of teaching such as demonstrations, discussion, meeting)** to do the activities. The plan of work may be seasonal, short-term, annual or long-term.

7. Carrying out the plan step by step: In this step whatever planner has decided in 6th steps are to be implemented practically by using inputs like; **MAN, METHODS, Material, TIME**, and process like **MOTIVATION, COORDINATION**, and **MANAGEMENT**.

During the execution (implementation) of the plan of work people should be involved at every step to make sure the success of the programme.

8. Evaluation of results: It is done to measure the degree of success of the programme in terms of the objectives and goals laid out. **It can be done at three levels by collecting information before the programme, during the programme and at the end of programme.**

- This is basically done to know the changes in the behaviour of the people as a result of the extension programme.
- Evaluation shows whatever way we go is in the right direction or not?
- Evaluation shows how far our plans have progressed.
- Evaluation indicates the effectiveness of a programme.

- Evaluation helps to locate strong and weak points in any programme or plan.
- Evaluation improves our skill in working with people.
- Evaluation helps to determine priorities for activities in the plan of work.
- Evaluation brings confidence and satisfaction to our work.
- Evaluation gives bench mark information for next programme.

Extension worker and village institutions should do evaluation of programme jointly. An effective evaluation requires adequate records of each activity. Each future programme should be based on the results of evaluation of the previous programmes.

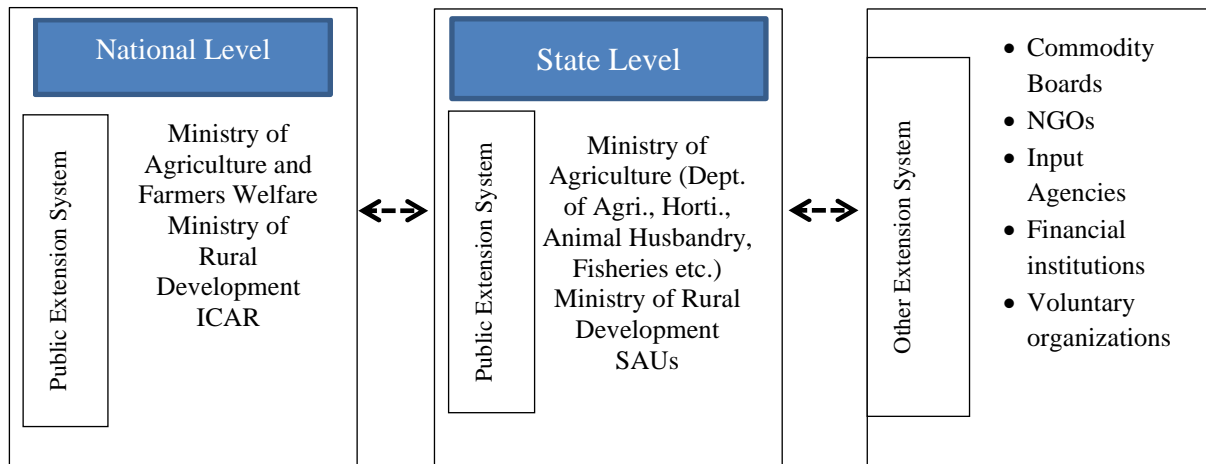
9. Reconsideration: The systematic and periodic evaluation of the programme will reveal the weak and strong points of the programme. Based on these points the programme is reconsidered and the necessary adjustments and changes are made in order to make it more meaningful and sound.

Programme planning is not the end product of any extension activities but it is an educational tool for helping people to identify their own problems and make timely and judicious decisions. From the above-mentioned cycle, it is clear that the planning of an extension programme comprises a logical series of consecutive steps.

Extension System in India

India has made significant achievement in agriculture by increasing production by four folds during last six decades. Among many drivers to accomplish this task, the policy, research and extension support have played crucial role. Public extension played a major role in ushering green revolution in Indian agriculture.

However, considering the varied agro-ecological situations under which farmers operate and variations in the resource base of farmers, the extension system envisaged to achieve desired growth in agricultural sector has to be pluralistic in nature and hence multiplicity of extension systems are operating in India.



Agriculture development in India is basically a state subject. The Union Government plays a major role in formulating national policies that has direct bearing on the growth of agricultural sector. The Union Government mainly provides road map through its policies, programmes and budgetary support to the sector. The programmes conceived at national level are mainly implemented by the states through its development departments. Besides, states also formulate region specific development programmes. Similarly, Indian Council of Agricultural Research (ICAR) is an apex body at the national level that supports and coordinates agricultural research, extension and education activities to evolve effective Transfer of Technology (TOT) models. The State Agricultural Universities (SAUs) also develop region specific extension models suitable to take up transfer of technology besides implementing the models evolved by ICAR system. All the systems maintain coordination among them for proper functioning and avoiding duplication of effort.

Public Extension System - National Level

At the national level the main extension service is provided by Ministry of Agriculture & Farmers Welfare, Government of India. The ministry has 3 departments, Department of Agriculture Cooperation and Farmers Welfare, Department of Animal Husbandry, Dairying and Fisheries and Department of Agriculture, Research and Education. All these three departments maintain a close coordination among them and perform their research and extension activities. The

Department of Agriculture Cooperation and Farmers Welfare has the main responsibility for developing and implementing various schemes for central government. The Ministry maintains a close relation with Indian Council of Agricultural Research (ICAR), which is a registered, autonomous body at the national level for conducting and coordinating agricultural research. The Ministry of Rural Development also undertakes many developmental programmes for social welfare.

The various programmes implemented at national level are as follows:

Post-independence period: The first planned attempt started with the launching of Community Development Programme in 1952, followed by the National Extension Service in 1953. These programs were able to educate farmers to take up improved methods of farming across the country. The other important Area-Based Special Programmes were; Intensive Agricultural District Programme (IADP, 1960), Intensive Agriculture Area Programme (IAAP, 1964) and High Yielding Varieties Programme (HYVP, 1966) besides Farmers Training Centers (1967) to train farmers on high yielding varieties and improved methods of farming to back up the above programs. The cumulative effect of these programs resulted in increased productivity, which made possible the 'Green Revolution' in Indian agriculture. In 2004 the Government launched Kisan Call Center to provide telephonic advisory services to the farmers in local language. To sustain agricultural growth rate at 4 per cent and more investment in agricultural and allied sector the national government implemented Rashtriya Krishi Vikas Yojana in 2007. To make the country self-sufficient in pulse production National Food Security Mission was introduced in the same year.

However, these programs widened gap between resource rich and resource poor farmers. In order to enable resource poor farmers to take benefit of improved farm technology, many client-based programs were introduced. The most important ones being; Small Farmers Development Agency (SFDA, 1970), Marginal Farmers and Agricultural Labourers Programme (MFAL, 1970), District Rural Development Agency (DRDA, 1978), Integrated Rural Development Programme (IRDP, 1978), etc. Although, these programs were able to improve the socio-economic conditions of beneficiaries, they were isolated in a given time and implemented in a phased manner.

Initiatives of ICAR: The Indian Council of Agricultural Research (ICAR) took up numbers of extension programmes over the years. The first programme was All India Coordinated Project on National Demonstration (1964) initiated to demonstrate the genetic production potentiality of major crops in the farmers' field. Then the Operational Research Project (ORP) was started during 1974-75 to identify technological as well as socio-economic constraints and to formulate and implement the problem solving technology modules on area/watershed/ target group basis in operational area. Then in 1974 the Krishi Vigyan Kendra was introduced to provide need based vocational training to the farmers, farm women, farm youth and extension personnel. Lab to Land programme was launched during 1979 to transfer low cost technologies for small and marginal farmers and agricultural laborers in agriculture and allied enterprises. Institute Village Linkage Programme was launched during 1995. Under innovation in technology dissemination component

of National Agricultural Technology Project (1998), the ICAR established Agriculture Technology Information Centre (ATIC) in each State Agricultural Universities and ICAR institutes to work as single window support system linking the various units of research institution with intermediary users and farmers in decision making and problem solving exercise through availability of technology inputs, products, information and advisory services under one roof. Since 2006-07, ICAR is implementing National Agricultural Innovation Project (NAIP), in a consortium mode.

Public Extension System - State Level

Extension Approach of State Development Departments: Agricultural development being the state subject, the major responsibility of implementing all the programmes of central and state governments goes with state department of agriculture/horticulture/animal husbandry/fishery. The major State Development Departments (Departments of Agriculture, Horticulture, Sericulture, Animal husbandry and Fisheries) having focus on development of agriculture and allied activities do undertake outreach activities. The effective extension activity is visible mostly for Agriculture department, which was one of the major partners in implementing Training and Visit System at state. Some of the states have suitably modified T and V system (like Broad Based Extension System in Tamil Nadu) to suit their local needs. Presently the state department of Agriculture is a nodal agency to implement Agriculture Technology Management Agency (funded by Ministry of Agriculture and Cooperation, GOI) at the district level. The coordination and integration of activities of other development departments is envisaged under ATMA.

During middle of 1970s it was observed that extension services in the developing countries were suffering from a number of weaknesses, including the engagement of extension workers' energies on low priority tasks; the lack of single as well as clear line of command; and low level of agricultural knowledge and skill among field level functionaries. As a means of reforming and strengthening the extension service, a reorganized agricultural extension system known as 'Training and Visit' (T & V) system was introduced in the country.

Training and Visit System: This system was introduced in India in 1974 with the World Bank assistance. Training and Visit system became the dominant method of restructuring the extension services in over sixty countries in Asia, Africa and Latin America, including India. The system aimed to achieve change in production technologies of farmers through professional assistance for the contact farmers from well-trained extension personnel on agricultural research and supported by supply, service and marketing facilities which were earlier lacking in National Extension Service.

Broad Based Extension System (BBES): This system aimed at rectifying the defects of T & V system in some of the Indian states. In the BBE: (a) the role of subject matter specialists was amplified and they were invited to formulate messages suitable to their land based activities (agriculture, sericulture, animal husbandry, horticulture, human resource development, creating agriculture infrastructure etc.), (b) village extension workers had full time job by offering messages during lean season also, and (c) the concept of broad based education laid emphasis on formulating

and delivering composite messages to the farmers to meet the needs of their whole agricultural environment.

Agriculture Technology Management Agency (ATMA): In country like India where agro-climatic zones widely differ besides significant variation in socio-economic status of farmers', uniform extension service is not the panacea for all the regions. It was realized that public extension system will have to be placed in new decentralized institutional arrangements which are demand driven, farmer-accountable, bottom-up and have farming system approach. To address these issues, the ATMA was envisaged as alternate public extension institution of all stakeholders at district level. Under the Support to State Extension Programme for Extension Reforms, the extension division of the Department of Agriculture Cooperation and Farmers Welfare makes general policies for ATMAs at national level and also provides technical and financial supports.

The state department of Horticulture is implementing National Horticulture Mission since 2005. The human resource development through training and demonstrations is an integral part of the mission. Under this programme, training of the farmers, field level workers and officers by both Government sectors (SAUs and ICAR institutes) and Non Government Organizations is being undertaken. Departments of Animal husbandry and Fisheries are conducting a variety of extension activities like discussion meetings, demonstrations, field visits, fairs, field days etc. by the technical field functionaries to transfer the new technologies.

State Agricultural Universities (SAUs): The State Agricultural Universities apart from lending support in implementing ICAR sponsored extension programmes, have evolved several innovative extension models to effectively reach the farming community. The type of extension activities undertaken by SAUs vary from state to state. The four agricultural universities of Gujarat state are undertaking transfer of technologies to farmers and others through Krishi Vigyan Kendras, Extension Education Units, Farmers Training Institute, Sardar Smriti Kendras, Staff Training Unit, Agriculture Technology Information Centre. The SAUs publish agriculture literature (books, booklets, folders and leaflets) in local languages for dissemination of agricultural technologies to the farmers and extension personnel. Some of the universities have their own mobile message services, community radio services and other different services.

Other Extension Systems

Extension activities of Commodity Boards, Financial Institutions, Input agencies, Non Government Organizations and Media Organizations come under this category.

Commodity Boards (Coffee board, Spice board, Tobacco board, Dairy Development board, Tea board, Coconut development board etc.) are extending crop/commodity specific technical know-how to the farmers to a limited extent as many of these boards do not have grass root level functionaries throughout the country.

Financial institutions normally provide assistance in preparation of agriculture project proposals by their technical staff to the farmers and others.

Agricultural input agencies besides providing critical inputs like seeds, planting materials, fertilizers, plant protection chemicals etc., they also sponsor/organize training programme to educate farming community.

The media organizations (print and electronic media) are disseminating timely information on weather, technical information and marketing information.

Various committed Non Government Organizations, Voluntary Organizations and Philanthropists are also rendering rural extension services to the rural community in the field of agriculture and allied sectors, health, sanitation, education, water supply etc., across the country.

Despite the efforts made by public as well private extension systems to put in place an effective extension mechanism, the present extension systems appear to be inadequate to address the challenges faced by the farmers in the context of changing agricultural scenario. There is very little penetration of extension system below the taluka level. The major reason being lack of grassroot level extension functionaries to work at panchayats or village level. The public extension system would continue to play an important role in technology dissemination to serve the large chunk of small and marginal farmers, besides the other extension service providers to supplement and compliment the public extension service. At the same time, extension mechanism has to be demand driven, location specific and address the diversified demands as well as those of marketing and value addition which calls for organized arrangement of farmers.

Extension Efforts in Pre-independence Era

It was during this period that the Department of Agriculture came into existence in June 1871 under the British rule, and by 1882, agricultural departments in most of the provinces started functioning in skeleton form. Recognizing the need for new and improved methods of cultivation based on agricultural research, the then Government had set up Imperial Agricultural Research Institute at Pusa in Bihar in 1905, which was later in 1936 transferred in New Delhi and now known as Indian Agricultural Research Institute (IARI).

The agricultural and rural development schemes of the pre independence era were mostly started by philanthropist individual person in sporadic manner. There were no proper coordination and participation of other stakeholders in those programmes. The list of those programmes is given below:

Scheme/programme	Year	Initiator	Remarks
Rural Reconstruction at Sundarban	1903	Daniel Hamilton	Developed model village based on cooperative principal
Gurgaon Project	1920	F. L. Brayne	Started at Gurgaon district of Punjab. Improving crop production, health, rural economy were the main concern. Concept of <i>Rural Guidance or Gaaon Sathi</i> was developed
Sevagram Project	1920	Mahatma Gandhi	Gandhian approach of village self-help by emphasizing cottage industries. Village sanitation, upliftment of backward and women in the village
Sriniketan Project	1921	Ravindra Nath Tagore	Developed a spirit of self-help, village leadership, organized village scouts called <i>Brathi Balika</i> , established training centers for handicrafts and a demonstration centre
Marathandam Project	1928	Spencer Hatch	Started in Kerala under the Young Men Christian Association (YMCA). Three-fold development, spiritual, mental & physical, and economic & social. Self-help with intimate expert counsel

Baroda Village Reconstruction	1932	V. T. Krishnamachari	Considered all aspects of rural life. Improvement in standard of living, spread education and industrialization.
Grow More Food Campaign	1942	The British govt.	To fulfill 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 before independence.
Indian Village Service	1945	A. T. Mosher & B. N. Gupta	Started in Allahabad and Aligarh in U. P.
Firka Development Scheme	1946	Madras Govt.	Development of village at <i>Firka</i> level. A <i>firka</i> is a revenue block consist of 5 -8 villages. The scheme used Gandhian ideal of “ <i>Village Swaraj</i> ” by bringing about not only educational, economic, sanitary and other developmental activities of villages but also by revitalizing the spirit of the people and making them self-confident and self-reliant

Rural Development

Rural Development in India is one of the most important factors for growth of Indian economy. India is primarily an agriculture based country and around 96 per cent of its population lives in rural area. The Ministry of Rural Development in India is the apex body for formulating policies, regulations and acts parenting to the development of the rural sector. Agriculture, handicrafts, fisheries, poultry, dairy are some of the common contributors to the rural business and economy. It means it is concerned with economic growth, social justice, and improvement in the living standard of the rural people by providing adequate and quality social services and minimum basic needs.

The present strategy of rural development mainly focuses on poverty alleviation, better livelihood opportunities, provision of basic amenities and infrastructure facilities through innovative programmes of wage and self-employment. This can be achieved by implementing various programmes in partnership with government organizations and various communities, non-governmental organizations, community based organizations, panchayatiraj institutions and industrial establishments.

For better understanding one should clearly understand the following concepts:

Community: A body of people having common rights, privileges or interests or living in the same geographical area under the same laws and regulations.

Development: It is act of improving by expanding or enlarging or refining.

Community Development: It is a process of developing or building up communities of men and women to enable their empowerment, self- sufficiency and control over their environment.

Rural area: It refers to an area where people are engaged mostly in primary activities to produce things first time in co-operation with nature.

Rural Development: Rural development is a process of bringing desirable changes in the life of rural mass in terms of their social, economic, cultural, psychological, technological, health and infrastructural conditions. It is a process of improving the standards of people residing in rural areas.

Objective of rural development:

The fundamental objective of the rural development is to raise the level of living standards of the rural people. The specific objectives are:

- To increase the availability and widen the distribution of basic life sustaining articles such as food, clothes, shelter, health care and security.

- To raise standards of living by providing of more jobs, increasing purchasing power, better education and greater attention to cultural humanistic values.
- To expand the range of economic and social choice of individuals by freeing them from slavery (*gulami*) and dependence.

Importance of Rural Development:

Rural development is a national necessity and has considerable importance in India because of the following reasons.

- To develop rural area as a whole in terms of culture, society, economy, technology and health.
- To develop living standard of rural mass.
- To develop rural youths, children and women.
- To develop and empower human resource of rural area in terms of their skill, knowledge, attitude and other abilities.
- To develop infrastructure facilities of rural area.
- To provide minimum facility to rural mass in terms of drinking water, education, transport, electricity and communication.
- To develop rural institutions like panchayat, co-operatives, post, banking and credit.
- To provide financial assistance to develop the artisans in the rural areas, farmers and agrarian unskilled labour, small and big rural entrepreneurs to improve their economy.
- To develop rural industries through the development of handicrafts, small scale industries, village industries, rural crafts, cottage industries and other related economic operations in the rural sector.
- To develop agriculture, animal husbandry and allied areas.
- To restore uncultivated land, provide irrigation facilities and motivate farmers to adopt improved seed, fertilizers, package of practices of crop cultivation and soil conservation methods.
- To develop entertainment and recreational facility for rural mass.
- To develop leadership in rural area.
- To improve rural marketing facility.
- To minimize gap between the urban and rural in terms of facilities availed.
- To improve rural people's participation in the development of state and nation as a whole.
- To improve scope of employment for rural mass.
- To eliminate rural poverty.
- To solve the problems faced by the rural mass for their development.

Problems in Rural Development

1. People related:

- Traditional way of thinking.
- Poor understanding.
- Low level of education to understand developmental efforts and new technology.
- Deprived psychology and scientific orientation.
- Lack of confidence.
- Poor awareness.
- Low level of education.
- Existence of unfelt needs.
- Personal ego.

2. Agricultural related problems:

- Lack of expected awareness, knowledge, skill and attitude.
- Unavailability of inputs.
- Poor marketing facility.
- Insufficient extension staff and services.
- Multidimensional tasks to extension personnel.
- Small size of land holding.
- Division of land.
- Unwillingness to work and stay in rural areas.

3. Infrastructure related problems:

- Poor infrastructure facilities like water, electricity, transport, educational institutions, communication, health, storage facility etc.

4. Economic problems:

- Unfavourable economic condition to adopt high cost technology.
- High cost of inputs.
- Underprivileged rural industries

5. Social and Cultural problems:

- Cultural norms and traditions
- Conflict within and between groups, castes, religions, regions, languages.

6. Leadership related problems:

- Leadership among the hands of inactive and incompetent people.
- Malafied interest of leaders.
- Biased political will.

7. Administrative problems:

- Earlier, majority of the programmes were planning based on top to bottom approach and were target oriented.
- Political interference.

- Lack of motivation and interest.
- Unwillingness to work in rural area.
- Improper utilization of budget.

Extension Efforts in Post-independence Era

(Including various agril. developmental programmes launched by Govt. of India and ICAR)

After independence the Government of India launched many extension/rural developmental programmes/ schemes. From 1947 to 1960 periods mostly rural development programmes were emphasized, after that to achieve the self-sufficiency in food production and make the country self-reliant in food production, from 1960 to 1970 the emphasis of the Government was to increase food production by initiating different agricultural developmental programmes. After that from 1970 onwards the focus of the Government shift to the development of weaker section and started to implement target group specific programmes, employment programmes for the development of rural pore. The various programmes undertaken by the government after independence of the country are listed below:

Programme	Year	Implemented by	Remarks
Etawah Pilot Project	1948	Albert Mayer	Started in in Etawah district of Uttar Pradesh. It is the forerunner of Community Development Programme. The concept of multipurpose village level worker was planned. An administrative pattern was evolved which facilitated extension activities to the village level.
Nilokheri Experiment	1948	S. K. Dey	Also known as <i>Mazdoor manzil</i> . Started to rehabilitate the families coming from Pakistan during partition at Nilokheri, Haryana. Established a vocational training center for providing training on poultry, piggery and other agricultural activities.
Bhoodan Movement	1951	Vinoba Bhave	Started at Pochampally village in Telangana. Earliest land reform programme in the country where excess land is provided to the landless or tenants.
Community Development Programme (CDP)	2 nd Oct., 1952	Govt. of India	On the recommendations of Grow More Food Enquiry Committee (1952), 55 community projects were started. Each project covers an area of about 450- 500 sq. miles with about 300 villages and a population of about 2

			lakhs. Each project area has been divided into three development blocks. A development block consisted of about 100 villages with about 150-170 sq. miles and a population of about 60-70 thousands. Each block was further divided into groups of 5-10 villages. Each such group formed the area of operation for a Village Level Worker (Gram Sevak) who was the basic level extension functionary. The programme emphasized all round development of the village community. First nationwide extension programme after independence.
National Extension Services (NES)	2 nd Oct., 1953	Govt. of India	Implemented in the areas which were not covered by CDP. It was less intensive than CDP. It is a permanent organization and covers the whole country. It provides the basic organization, official, non-official and a minimum financial provision for development.
Panchayat Raj Institutions	1958-59	Govt. of India	Recommended by Balwant Rai Mheta committee (1957). Also known as democratic decentralization. It is village self-governance. It was 3 tier system of Village (Gram) panchayat at village level, Panchayat samiti (taluka panchayat) at taluka or block level and Zila parishad (zila panchayat) at district level. First adopted by the state of Rajasthan in Nagaur district on 2 nd Oct., 1959.
Intensive Agriculture District Programme (IADP)	1960	Govt. of India	Based on the report of Ford Foundation team (1958) entitled ' <i>India's Food Crisis and Steps to Meet It</i> ' the government launched this programme from Kharif season. This programme was also known as <i>Package</i>

			<p><i>Programme.</i> Not only the agriculture production was emphasized in the programme but the credit facility, marketing and value addition were also taken care of. Every farmer has to prepare their farm plan. The programme was initially started in 7 districts of the country, Travancore, Madras (T.N.), West Godawari (A.P.), Sambhalpur (Orissa), Raipur (M.P.), Ludhiana (Punjab), Aligarh (U.P.) and Pali (Rajasthan).</p>
Intensive Agriculture Area Programme (IAAP)	1964	Govt. of India	It was similar to IADP but less intensive than IADP.
Intensive Cattle Development Project (ICDP)	1964-65	Govt. of India	It was envisaged to locate the breeding tracts of indigenous breeds of cattle and buffaloes and in the milk sheds of large dairy projects. The establishment of ICDPs was linked with the dairy plants so as to enable the dairy plants to collect and process milk to their full capacities. Each ICDP was expected to cover one lakh breedable female bovine population and to provide necessary inputs and technical services.
High Yielding Variety Programme (HYVP)	1966	Govt. of India	Introduction of dwarf wheat variety. Tremendous increase in food grain production. William Gaud termed this as <i>Green Revolution</i> . Dr. N. E. Borlog and Dr. M. S. Swaminathan were the two important persons who contributed whole heartedly to the programme.
Small Farmers Development Agency (SFDA)	1970-71	Govt. of India	Under the RBI appointed All India Rural Credit Review Committee, B. Venkatappiah recommended this programme. The scheme implemented by the agency to provide loan from the loan institutions, co-operatives and commercial banks, to study the problems of the small farmers, to

			arrange small irrigation, provide new agricultural instruments and to build field project after assessing the resources of the farmers. The subsidy under this scheme was 25% (for non-tribal farmer) and 50% (for tribal farmer). 50 such projects were implemented throughout the country during the fourth five year plan.
Marginal Farmers and Agricultural Labour Development Agency (MFALA)	1970-71	Govt. of India	The agency provides intensive agricultural methods, loans, and production materials for the increment in income of the marginal farmers and agricultural labourers. 41 such projects were implemented throughout the country.
Tribal and Hill Area Development Programme	1973-74	Govt. of India	Initially tribal development project was launched in 8 districts of four states. Srikakulam (A.P.), Singhbhum (Bihar), Jhabua & Raipur (M. P.), Ganjam, Koraput, Keonjhar and Phulbani (Orissa). Hill area development project was launched in Paudi garhwal (U. P.) and Nangva (Manipur). These areas were getting special aid from planning commission for developmental activities, like, best utilization of water and land, providing facility of housing for the landless farmers, minimizing the traditional planting of trees and <i>Jhoom</i> farming, cattle development, dairy development, piggeries, goat, sheep, beehive and silk-worm taming.
Drought Prone Area Programme (DPAP)	1973-74	Govt. of India	Only implemented in those areas where rain was scares, drought was frequent and no facility for irrigation. Main activities included was protection of land and water resources, planting of trees, development of dairy, animal husbandry, sheep rearing practices and

			other subsidiary income generating activities.
Command Area Development Programme (CADP)	1974	Govt. of India	Focused on specific area to utilize the available water in proper manner which can be achieved through reducing the wastage of water by over irrigation and drainage, scheduling of irrigation, leveling of fields, encouraging encourage night irrigation, following proper methods of irrigation etc.
Desert Development Programme (DDP)	1977-78	Govt. of India	Main aim was integrated development of desert area. This programme is operational in 227 blocks of 36 districts of seven states <i>i.e.</i> Rajasthan, Haryana, Gujarat, and Jammu & Kashmir. Increasing production, level of income, providing the facility of employment and best utilization of the available resources were the thrust areas of the programme.
Integrated Rural Development Programme (IRDP)	1978	Govt. of India	It was the largest poverty alleviation programme of the country. The programme was designed to enable the rural poor families to cross the poverty line by providing productive assets and inputs to the target groups. The programme was implemented in all the blocks in the country as a centrally sponsored scheme funded on 50:50 basis by the Centre and State. For effective implementation of the programme District Rural Developmental Agency (DRDA) was created. The programme now merged with SGSY.
Training of Rural Youth for Self Employment (TRYSEM)	15 th Aug., 1979	Govt. of India	To provide training facilities and create self-employment among rural unemployed youths. It is a facilitating component of IRDP. It was designed to provide technical and basic skills to

			rural youth (18- 35 years age) from families below poverty line to enable them to take up self-employment.
National Rural Employment Programme (NREP)	1980	Govt. of India	It was designed to significantly increase employment opportunities in rural areas by creating additional gainful employment for unemployed and under employed persons. Wages were paid partly in cash and partly in food grain 1-2 kg/day/head. Central and state government share was 50:50.
Development of Women and Children in Rural Areas (DWCRA)	1982	Govt. of India	It was a sub component of IRDP. It is directed at raising the income levels of women of poor households so as to enable their organized participation in social development towards economic self reliance. Later it was merged with SGSY
Jawahar Rozgar Yojana (JRY)	1989	Govt. of India	The National Rural Employment Program (NREP) and Rural Landless Employment Guarantee Programme (RLEGP) were merged together to form JRY. The Yojna was implemented on rural scale. Every village was to be covered through Panchayati Raj Institutions. The village got aide and support from DRDA. Expenditures were born by central and state in 80:20 ratios.
Employment Assurance Scheme (EAS)	1993	Govt. of India	Provide gainful employment during the lean agricultural season in manual work to all able bodied adults in rural areas who are in need and desirous of work, but cannot find it.
Rashtriya Mahila Kosh (RKM)	1993	Govt. of India	The RKM was established for socio-economic empowerment of women. It is a facilitating agency wherein RMK provides loans to NGO-MFIs termed as Intermediary Organizations (IMO) which on-lend to

			Self Help Groups (SHGs) of women. It is an autonomous body appointed as nodal agencies for reaching out to the women beneficiaries with easy access of micro credit for income generating activities.
Mahila Samridhi Yojana (MSY)	1993	Govt. of India	Objective was to empowering the rural women through building thrift habit, self-reliance and confidence among them. Provide economic security to the rural women and to encourage, the saving habit among them. It also provide microfinance to the women entrepreneurs.
Swarnajayanti Gram Swarojgar Yojana (SGSY)	1999	Govt. of India	Provide sustainable income to poorest of the poor people living in rural areas. 6 previous programme i.e. IRDP, TRYSEM, DWCRA, Million Wells Scheme , Ganga Kalyan Yojna and SITRA (Supply of Improved Toolkits to Rural Artisans) were merged together. The SGSY aims at providing self employment to villagers through the establishment of Self Help Groups. Activity clusters are identified based on the local resource and skill of the people. The programme focused on establishing microenterprise in the village.
Kisan Credit Card	1999-2000	Govt. of India	Helps the farmers to access timely and adequate credit. It was started by the RBI and NABARD. The limit of finance was decided by the lead bank. The card is valid for five years and subjected to annual renewal. KCC offering credit to the farmers in two types viz., Cash Credit and Term Credit (for allied activities such as pump sets, land development, plantation, drip irrigations).

Antyodaya Anna Yojana (AAY)	25th Dec., 2000	Govt. of India	Provide highly subsidized food to the poorest families of the country. First implemented in Rajasthan. The beneficiaries can purchase 35 kg of rice and wheat at Rs. 3 per Kg for rice and Rs. 2 per Kg for wheat. The beneficiaries can purchase the food grain from Public Distribution System (PDS).
Sampoorna Grameen Rozgar Yojana (SGRY)	2001	Govt. of India	Provide providing gainful employment to the rural poor. The programme was implemented through the Panchayati Raj institutions. Previous EAS and JRY were merged to this programme. Expenditures were born by central and state in 75:25 ratios.
Agri Clinic and Agri Business Centres (ACABC)	2002	Govt. of India	The scheme aims to promote the establishment of Agri-Clinics and Agri-Business Centres (ACABC) all over the country. The MANAGE provide necessary training to the applicant and NABARD will provide the fund for establishing the centres. Agri-Clinics are envisaged to provide expert advice and services to farmers on various aspects of farming. Agri-Business Centres are commercial units of agri-ventures established by trained agriculture professionals. Such ventures may include maintenance and custom hiring of farm equipment, sale of inputs and other services in agriculture and allied areas, including post-harvest management and market linkages for income generation and entrepreneurship development. Graduates in agriculture and allied subjects, Diploma holder in Agri. & allied subjects, Post graduates in Agriculture can apply for the scheme.

Kisan Call Centre	2004	Govt. of India	The call centers were established across the country to deliver extension services to the farming community in local language. A farmer from any part of the country can contact the Call Centre by dialing the toll free No. 1800-180-1551 and present their problems/queries related to farming. The operator at the Kisan Call Centre will attempt to answer the problems/queries of the farmers immediately. In case the operator at the Call Centre is not able to address the farmer's query immediately, the call will be forwarded to identified agricultural specialists.
National Project on Organic Farming	2004	Govt. of India	Objective was to promote organic farming practices, provide financial and technical support for setting up of organic input production unit and human resource development and awareness creation and market development for Quality Control of Organic Inputs.
National Rural Employment Guarantee Act	2005	Govt. of India	The act aims to guarantee the right to work. The primary objective was to enhancing livelihood security in rural areas by providing at least 100 days of guaranteed wage employment in a financial year, to every household whose adult members volunteer to do unskilled manual work. Employment is to be provided within 5 km of an applicant's residence, and minimum wages are to be paid. If work is not provided within 15 days of applying, applicants are entitled to an unemployment allowance. Now this is known as Mahatma Gandhi National

			Rural Employment Guarantee Act (MNREGA).
National Horticulture Mission (NHM)	2005	Govt. of India	The main objective was to develop horticulture to the maximum potential available in the State and to augment production of all horticultural products. Food processing and value addition of horticultural crop was also emphasized.
National Food Security Mission (NFSM)	2007	Govt. of India	To increase the production of rice, wheat, and pulses by 10 million tonnes, 8 million tonnes, and 2 million tonnes respectively by the end of the Eleventh Plan (2012). Increase production through area expansion and productivity; create employment opportunities; and enhance the farm-level economy (i.e. farm profits) to restore confidence of farmers. NFSM now has 5 components: NFSM: Rice, NFSM: Wheat, NFSM: Pulse, NFSM: Coarse cereals, NFSM: Commercial crops.
Rashtriya Krishi Vikas Yojana (RKVY)	2007	Govt. of India	The programme seeks to achieve 4% annual growth in agriculture through development of Agriculture and its allied sectors. It provides the state government more autonomy to draw up plans for increased public investment in Agriculture and allied sector. It also emphasized to draw up the agricultural plan for the district and state.
National Rural Livelihood Mission (NRLM)	2011	Govt. of India	This scheme is focused on promoting self-employment and organization of rural poor. The basic idea behind this programme is to organize the poor into SHG (Self Help Groups) groups and make them capable for self-employment by introducing some

			entrepreneurial activity. The SGSY is remolded into this programme.
Programmes of ICAR			
All India Coordinated Project on National Demonstration (AICPND)	1964	ICAR	This nationwide demonstration project was conducted to show the farmers the genetic production potentiality of the crop. The demonstrations were laid out in the field of actual farmers with small holding. The average size of the demonstration plot was 1 ha. It may be 1 acre if bigger plot was not available. There was a specific yield target for each demonstration. The demonstration was conducted by the agricultural scientists in association with local extension workers.
Operational Research Project (ORP)	1974-75	ICAR	Aimed to disseminate the proven technology among the farmers in water shade basis, covering whole village or cluster of villages. It also studies the constraints as barriers to rapid spread of improved technical knowledge. Demonstrate the impact of new technology on a large scale, covering whole village or cluster of village at a time.
Krishi Vigyan Kendra (KVK)	1974	ICAR	Designed to impart need based skill oriented vocational training to the farmers, in-service field level extension workers and the youth who wish to go for self employment. KVK provides learning through work experience and concerned with technical literacy. There was no specific syllabus for training; it was based on the need of the farmers. From 1992 all the transfer of technology programmes of ICAR, viz. AICPND, ORP and LLP are merged to the KVK and new mandate for KVK was made. The mandates were no farm

			testing, training and front line demonstration.
Lab to Land Programme (LLP)	1979	ICAR	The programme was launched as golden jubilee celebration of ICAR. The overall objective of the programme was to improve the economic condition of the small and marginal farmers and landless agricultural labourers, particularly SC and ST, by transferring improved low cost technology. Also encourage supplementary source of income.
Institute Village Linkage Programme (IVLP) & Technology Assessment and Refinement Project (TARP)	1995	ICAR	It lays emphasis on the research aspect through the participation of farmers. It is a production system oriented project with agro-ecosystem analysis of the adopted villages, which helps in identify the problems, priorities them and finalize the technological intervention point which are further developed into action plans to overcome the problems through assessment and refinement of technologies.
National Agricultural Technology Project (NATP)	1998	ICAR	It was world bank financed project. Innovation in Technology Dissemination (ITD) component was planned in this project. ITD aims to develop a transfer of technology system which will be more demand driven, well integrated with research, financially sustainable and accountable to the stakeholders. Under this programme ATMA, ATIC were conceptualized. The project emphasizes the research, extension and farmers linkage.
National Agricultural Innovation Project (NAIP)	2006	ICAR	This was also world bank financed project. The project facilitated accelerated and sustainable

			transformation of Indian agriculture so that it can support poverty alleviation and income generation. The project was implemented in consortium mode. The specific objectives of the project were: developing capacity of the Indian NARS, promote research from production to consumption, improve livelihood security of the rural people, and to develop capacity undertake basic and strategic research in agriculture and allied fields.
National Innovations in Climate Resilient Agriculture (NICRA)	2011	ICAR	It is a network project which aims to enhance resilience of Indian agriculture to climate change and climate vulnerability through strategic research and technology demonstration. The project consists of four components viz. Strategic Research, Technology Demonstration, Capacity Building and Sponsored/Competitive Grants.
Attracting and Retaining Youth in Agriculture (ARYA)	2015	ICAR	The objective was to facilitate the entrepreneurial development of youth in rural areas to take up various agriculture, allied and service sector enterprises for sustainable income and gainful employment. The identified youth were trained on entrepreneurship development skills by providing a basket of options to start agriculture ventures for self employment. It will also attract the rural youth to go for agriculture as an occupation.
My Village My Pride/ Mera Gaon, Mera Gourav (MGMG)	2015	ICAR	To enhance the direct interface of the agricultural scientists with the farmers. Provide farmers with required information, knowledge and advices on regular basis. Under this scheme group of scientists will select a village and remain in continuous touch with that

			village and provide required information to the farmers of that village.
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Various Rural Development Programmes Launched by Govt. of India

Sr.	Name of Programmes	Year of Starting	Importance Remark
1.	Panchayat Raj System	1959	<ul style="list-style-type: none"> Political will of the Govt in sharing authority and responsibility with the Panchayats. Enactment of laws relating to PRIs.a basic pattern of Democratic decentralization with theGram panchayat (Village Council) at the village level, the Panchayat Samiti at the block level and the Zilla Parishad (district council) at the district level.
2.	Antyodaya Anna Yojana (AAY)	Dec., 2000	<ul style="list-style-type: none"> The main objective of the scheme is to ensure food security and to create hunger free India. Twenty five kilograms (kg) of food grains were made available to each eligible family at a highly subsidized rate of Rs. 2 per kg for wheat and Rs.3 per kg for rice. This quantity has been enhanced from 25 to 35 kg with effect from April, 2002.
3.	Deen Dayal Upadhyaya Grameen Kaushalya Yojana(DDU-GKY)	25 th Sept., 2014	<ul style="list-style-type: none"> The Vision of DDU-GKY is to "Transform rural poor youth into an economically independent and globally relevant workforce". The scheme aims to provide skill to the poor youth of the country, thereby giving them opportunities for growth.
4.	Deendayal Disabled Rehabilitation Scheme (DDRS)	13 th July, 2013	<ul style="list-style-type: none"> NGOs are provided financial assistance for providing various services to people with disabilities, such as special schools, vocational training centers, community-based rehabilitation, pre-school and initial interference etc.
5.	Gramin Bhandharan Yojana Or Rural Godown Scheme,	1 st April, 2001	<ul style="list-style-type: none"> Government provides supports to an individual, a company, a farmer, local government, NGOs and various associations, if they build or renovate rural godowns. The scheme has been subsumed into capital investment subsidy sub-scheme "Agricultural Marketing Infrastructure (AMI)" of Integrated

			Scheme for Agricultural Marketing (ISAM) scheme w.e.f 01.04.2014.
6.	Rural Housing (Indira Awas Yojana)	January, 1996	<p>Rural housing programme, as an independent programme, started with Indira Awaas Yojana (IAY) in January 1996. Although IAY addressed the housing needs in the rural areas, certain gaps were identified during the concurrent evaluations and the performance Audit by Comptroller and Auditor General (CAG) of India in 2014.</p> <p>2. To address these gaps in the rural housing program and in view of Government's commitment to providing "Housing for All" by the scheme 2022, the of has IAY has been re-structured into Pradhan Mantri Awaas Yojana – Gramin (PMAY-G) w.e.f. 1st April 2016.</p>
7.	The Integrated Child Development Services (ICDS)	2 nd Oct., 1975	The Integrated Child Development Services (ICDS) scheme is a government initiative for the all-round development (health, nutrition and education) of children under 6. Its aim is to reduce infant mortality, child malnutrition and to provide pre-school education.
8.	Integrated Rural Development Programme	1978-79	<ul style="list-style-type: none"> • Programme aims at providing self employment to the rural poor through acquisition of productive assets or appropriate skills to generate additional income on sustainable base. • It is for small and marginal farmers, agricultural labourers and rural artisans living Bellow Poverty Line (BPL), Scheduled Caste/ Scheduled Tribe families and physically handicapped person.
9.	Swarnjayanti Gram Swarozgara Yojana	1999	<ul style="list-style-type: none"> • For rural poor living Bellow Poverty Line (BPL) in rural area for taking of self employment as individuals or in a group- which called as Self Help Group
10.	Livestock Insurance Scheme	2008-09	<ul style="list-style-type: none"> • To Safe Guard assured protection to the animals of the farmer against eventual losses. • Benefit of subsidy is to be restricted to 5 animals per beneficiary per household for all animals except sheep, goat, pig and rabbit.
11.	Mahatma Gandhi National Rural Employment Guarantee Act	August 25, 2005	<ul style="list-style-type: none"> • The "Mahatma Gandhi National Rural Employment Guarantee Act", (MGNREGA), is an Indian labor law and social

			<p>security measure that aims to guarantee the 'right to work'.</p> <ul style="list-style-type: none"> • It aims to enhance livelihood security in rural areas by providing at least 100 days of wage employment in a financial year to every household whose adult members volunteer to do unskilled manual work.
12.	Rashtriya Krishi Vikas Yojana(RKVY) National Agriculture Development Programme	29 th May, 2007	<ul style="list-style-type: none"> • To orient agricultural development strategies, to reaffirm its commitment to achieve 4 per cent annual growth in the agricultural sector during the 11th plan.
13.	National Food Security Mission	October, 2007	<ul style="list-style-type: none"> • For stagnating food grain production and an increasing consumption need of the growing population, Government of India has launched this Centrally Sponsored Scheme. • The aim is to bridge the yield gap in respect of these crops through <i>dissemination of improved technologies and farm management practices</i>.
14.	National Rural Livelihood Mission	June, 2011	<ul style="list-style-type: none"> • It is a poverty alleviation scheme implemented by Union Ministry of Rural Development.
15.	Pradhan Mantri Awas Yojana (PMAY)	2015	<ul style="list-style-type: none"> • Pradhan Mantri Awas Yojana has been established by the Government of India to offer affordable houses to various sections of the society. This scheme offers interest subsidy on the home loans taken by individuals belonging to EWS (Economically Weaker Section), LIG (Low Income Group), and MIG 1 & 2 (Middle Income Group 1 & 2).

New Trends in Agriculture Extension: Institutional reforms

Krishi Vigyan Kendra

The vigorous attempt was realized by the Education Commission (1964-66) to establish a specialized institution to provide vocational education in agriculture and allied fields at the pre and post matriculation levels to cater to the training needs of a large number of boys and girls coming from rural areas. The recommendation of Education Commission was thoroughly discussed during 1966-1972 associating the Ministry of Agriculture, Ministry of Education, Planning Commission, ICAR and other institutions. Finally, the Indian Council of Agricultural Research (ICAR) mooted the idea of establishing Krishi Vigyan Kendra (Farm Science Centre) as innovative institutions for imparting vocational training to the farmers and field level extension functionaries. As a result of this, in 1973 a committee headed by Dr. Mohan Singh Mehta of Seva Mandir, Udaipur (Rajasthan) was constituted and based on its report in 1974 it was decided to have Krishi Vigyan Kendra (KVKs) as Farm Science Centers for speedy transfer of technology to the farmer's fields.

The first KVK was established in 1974 at Pondicherry under the administrative control of the Tamilnadu Agricultural University, Coimbatore. In Gujarat 1st KVK was established in Deesa during 1976 which is working nowadays under the administrative control of the SDAU, Sardarkrushinagar. At present total 694 KVKs including 30 KVKs of Gujarat are established and functioning in the country.

The Mandate of the KVK's is

The final revised mandate of KVK is Technology Assessment and Demonstration for its Application and Capacity Development. (TADA-CD)

It includes:

1. Conducting on-farm testing to identify the location specificity of agricultural technologies under various farming systems
2. Organizing frontline demonstrations to establish production potential of various crops and enterprises on the farmers' fields
3. Organizing training for capacity development of farmers and field extension personnel to orient them in the frontier areas of technology development
4. Creating awareness about improved technologies to larger masses through appropriate extension activities
5. Work as resource and knowledge centre of agricultural technology for supporting initiatives of public, private and voluntary sector for improving the agricultural economy of the district
6. Production and supply of good quality seeds and planting materials, livestock, poultry and fisheries breeds and products and various bio-products to the farming community

Objectives:

1. To demonstrate the latest agricultural technologies to the farmers as well as the extension workers of the State Department of Agriculture / Non-Governmental organizations with a view to reducing the time-leg between the technology generation and its adoption.
2. To test and verify the technologies in the socio-economic condition of the farmers and identifying the production constraints.
3. To get first-hand scientific feedback from the fields and passing it to the research system in order to keep the scientists abreast with the performance of the technologies and the farming problems, so that they re-orient their research, education and training programme accordingly.
4. To impart training to the farmers, farmwomen, rural youth and field level extension functionaries by following the principles of “Teaching by doing” and “Learning by doing”.
5. To provide training and communication support to the line department of the State/NGOs.
6. To develop extension models to be adopted by general extension system for large scale multiplications.
7. Organizing farm science clubs in rural areas for young farmers.
8. Developing and maintaining demonstration units on KVK farm in scientific lines.

Activities of Krishi Vigyan Kendra:

Based on mandate, the following activities are performed by the KVKs.

1. On farm testing.
2. Front line demonstrations.
3. Vocational training of practicing farmers, farm women and rural youths.
4. In service training of extension functionaries.
5. Serve as knowledge center in the district.
6. Farm advisory other extension activities.

The above said activities are performed every year by the Krishi Vigyan Kendra, through specialist of six disciplines viz., Extension Education, Agronomy, Horticulture, Plant Protection, Animal science, Agriculture Engineering (the specialist can be changed as per location specific need), which are most relevant taking into consideration national resources and infrastructure facilities of the district.

Features of Krishi Vigyan Kendra:

1. Powerful technical support
2. Real experience as training
3. Need based training courses
4. Flexibility with farmers
5. Concept of integrated training
6. Real field oriented course content
7. Specific area of operation

8. Informal training without certificate or diploma
9. Powerful institutional linkage
10. Practical training
11. Frequent follow up measures
12. Training interaction and reporting systems
13. Impact study of the trainings, demonstrations and all extension activities

Organization of KVK:

The project is sponsored by the ICAR and implemented by its Research Institutes, State Agricultural Universities (SAUs), NGOs and State Department of Agriculture. In selecting host institutions preference is given to institutions/agencies having agriculture base and experience of rural development and training.

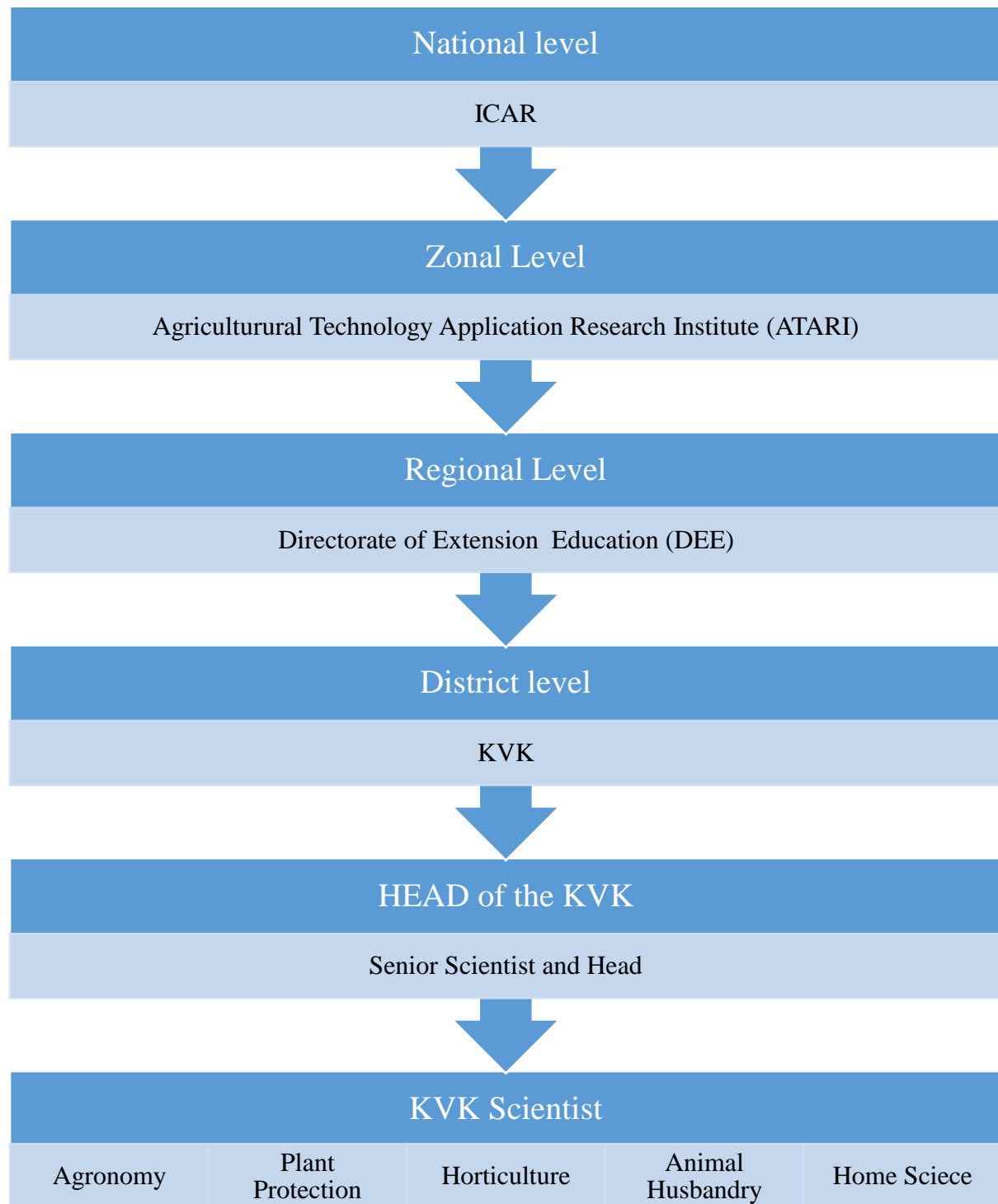
The KVK is headed by a Senior Scientist of the rank of an Associate Professor designated as Programme Coordinator with sufficient field experience in the field of agricultural extension or agronomy. The head is supported by scientists (Training Associate) in field of Extension, Agronomy, Horticulture, Home science, Agricultural engineer, Animal science, Soil science, Fisheries, Plant protection etc. (according to regional requirement). The head is also supported with three technical staff designated as Training Assistant (Computer programmer, Farm Manager, Training).

The Local Management Committee, which is now renamed as Scientific Advisory Committee in each KVK, is an important instrument of management. This committee is devoted to constantly review the progress of the KVK, provide guidance for organizing training programmes and follow-up extension activities and redress, wherever possible. This is strong mechanism for functional linkage with other sister organizations/institutions.

Chairman of SAC: Head of the host institute

Other Members of SAC: DEE, Director ATARI, Representative ICAR institute, Associate Director of Research of the zone, District officers of the line departments, Representative of NABARD and Lead bank, District information officer, 2 farmer's representatives among which one should be woman farmers.

The organizational structure of KVK:



Organizational Structure of KVK

Agricultural Technology Management Agency (ATMA)

ATMA is a society of key stakeholders involved in agricultural activities for sustainable agricultural development in the district. It is a focal point for integrating Research and Extension activities and decentralizing day-to-day management of the public Agricultural Technology System. It is a registered society responsible for technology dissemination at the district level. As a society, it would be able to receive and expend project funds, entering into contracts and agreements and maintaining revolving accounts that can be used to collect fees and thereby recovering operating cost.

Why ATMA?

The ATMA at district level would be increasingly responsible for all the technology dissemination activities in the district. It would have linkage with all the line departments, research organizations, non-governmental organizations and agencies associated with agricultural development in the district. Research and Extension units within the project districts such as Zonal Research Station or substations, KVKs and the key line Departments of Agriculture, Animal Husbandry, Horticulture and Fisheries etc. would become constituent members of ATMA. Each Research-Extension unit would retain its institutional identity and affiliation but programmes and procedures concerning district-wise Research-Extension activities would be determined by ATMA Governing Board to be implemented by its Management Committee.

Location of the Office: The registered office of the ATMA shall be located at district collectorate premises.

Objectives:

1. To identify location specific needs of farming community for farming system based agricultural development;
2. To set up priorities for sustainable agricultural development with a Farming Systems Approach;
3. To draw plans for production based system activities to be undertaken by farmers/ultimate users;
4. To execute plans through line departments, training institutions, NGOs, farmers organizations and allied institutions;
5. To coordinate efforts being made by various line departments, NGOs, farmers organizations and allied institutions to strengthen research extension-farmers linkages in the district and to promote collaboration and coordination between various State funded technical departments;
6. To facilitate the empowerment of farmers/producers through assistance for mobilization, organization into associations, cooperatives etc. for their increased participation in planning, marketing, technology dissemination and agro-processing.
7. To facilitate market interventions for value addition to farm produce.

Organization:

Under ATMA, it is proposed to have a governing board which would be a policy making body and provide guidance as well as review the progress and functioning of the ATMA. The management committee would be responsible for planning and reviewing the day-to-day activities.

ATMA Governing Board:

The registered office of the ATMA shall be located at district collectorate premises.

1. District Development Officer (DDO) is the Chairman of governing board
2. Chief Executive Officer /Chief Development Officer (As Vice Chairman)

Members:

- | | |
|--|--|
| 1. Joint Director/ Deputy Director (Agriculture) | 9. Lead Bank Officer of the District |
| 2. A Representative from ZRS/KVK | 10. Representative of the district industries centre |
| 3. One farmer representative | 11. Representative of agricultural marketing Board |
| 4. One livestock producer | 12. Representative of input supply association |
| 5. One horticulture farmer | 13. One fisheries/sericulture representative |
| 6. Representative of woman farmer | 14. Project Director, ATMA-Member Secretary cum Treasurer (Ex-officio) |
| 7. One SC/ST farmer representative | |
| 8. A representative of NGOs | |

ATMA Management Committee (AMC):

The management committee would be responsible for planning and execution of day-to-day activities of ATMA.

Project Director, ATMA is the Chairman of the committee.

Members: District head of Department of agriculture, Horticulture, Animal Husbandry, Fisheries, Sericulture, line departments that may important within a district, head of KVK and one representative of NGOs, in charge of farmer organization.

SREP: ATMA management committee conducts PRA and prepares Strategic Research and Extension Plan (SREP) for the district. SREP is a useful document provides the details of problems and technological needs for agricultural development in a district. The basic aim of SREP is to link the research and extension system with the farmers. It is a bottom up planning process carried out at the district level to identify the technological and training need of the farmers. It speaks out the extension and research priorities of the district based on grass root analysis. It is very useful and comprehensive document to understand the whole agricultural scenario of the district.

ROLE OF ATMA:

1. Take steps to ensure that problems, constraints and needs to the farming system based agriculture development are identified and diagnosed periodically.

2. Draw up plans for an integrated research-extension linkage approach for farming systems based agriculture development.
3. Ensure that line departments/institutions draw up integrated development plan based upon resources available with them and incremental/supplementary resources mobilized by the ATMA.
4. Forge or develop systematic linkages between national /state/ district institutions of excellence in the field of agriculture and marketing.
5. Ensure capacity building of manpower engaged in overall agricultural development and strengthen infrastructure support for the benefit of the farmer/producer.
6. Create suitable mechanism to ensure location specific adaptive, indigenous knowledge based research.
7. Ensure adequate linkages and frequent interaction between scientists, extension functionaries technicians and farmers, in order to prepare an integrated plan to effectuate their linkage, support each other, better understanding and appreciation of their problems, means adopted to sort out problems and plans etc., and to develop a mechanism of feedback;
8. Ensure capacity building of the ultimate users- the farmers in terms of physical, financial and skill resources base by way of adequate financial support canalized through credit institutions, private investments and training for skill up gradation.
9. Facilitate farmers' organization to take lead-role on mobilizing support services and resources.
10. Facilitate private investments for infrastructure development, private institutions have to take lead in the delivery of goods and services to ultimate users (farmers).
11. Facilitate the processing and marketing activities of the agricultural, livestock, dairy, poultry, silk and allied produce of the farmers with the help of private sector institutions.
12. Receive and expend project funds, maintain revolving accounts, enter into contracts and agreements, receive donations and provide services and deliver goods to beneficiaries.
13. Accept grants of money, securities or property of any kind and undertake and accept the management of any endowment, trust funds or donations not inconsistent with the objectives of the ATMA, on such terms and conditions as may be fitted with the objectives of the ATMA and be prescribed by the Government of India from time to time.
14. Generate resource in order to bring financial sustainability through charging for selected services rendered to beneficiaries by ATMA.
15. Create administrative, technical, ministerial and other posts in the ATMA and make appointments accordance with the rules and regulations of the State Government.
16. Do all such other lawful acts and things either alone or in conjunction with other organizations or persons, as the ATMA may consider necessary, incidental or conducive to the attainment of the above objectives.
17. All such lawful acts and things whether incidental to objectives in force or not as may be requisite in order to furtherance of the objectives of the ATMA.

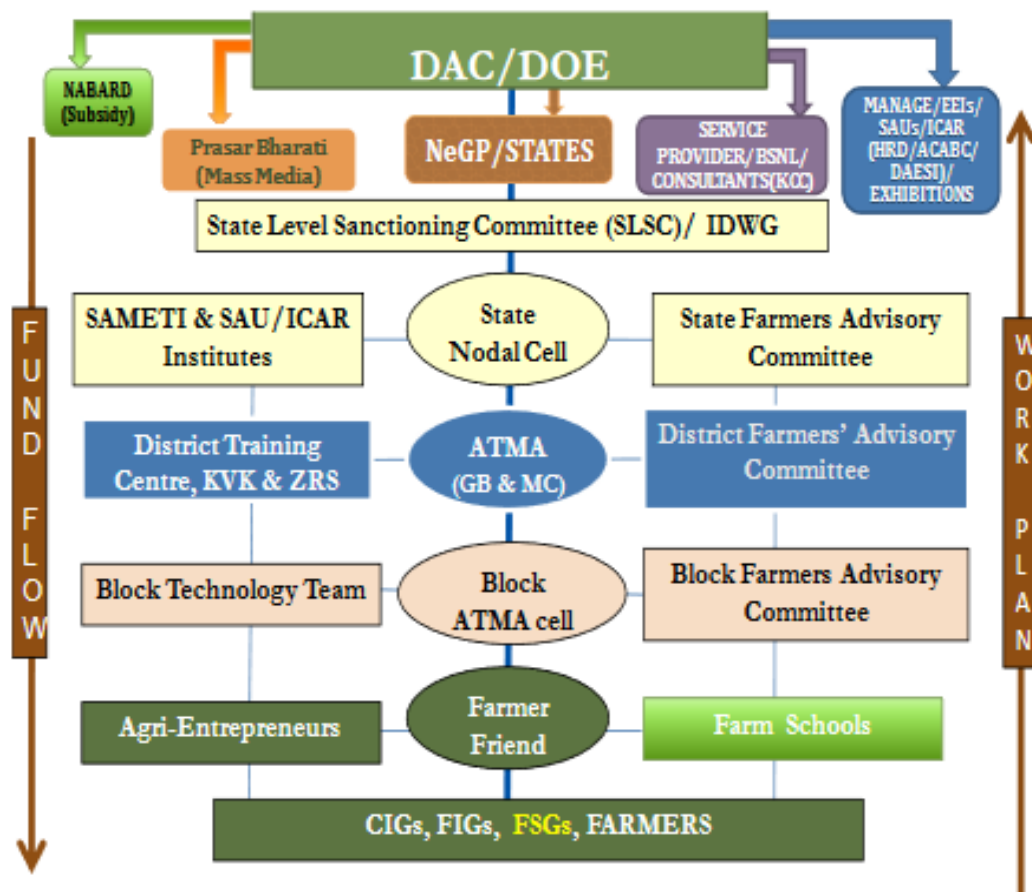
18. Sell, lease, exchange and otherwise transfer of any portion and the properties of the society (ATMA).

Farm school:

Among the recent innovative modifications in the ATMA structure the organisation of Farm Schools is the notable one. The teachers of the schools could be progressive/achiever/successful farmers where students are the leaders of Commodity Interest Groups (CIGs), Farmers Interest Groups (FIGs) of different village. The main activity of school is to operationalize “Front Line Demonstrations” on integrated crop management includes field preparation, seed treatment, IPM, INM, etc. The schools also provide season long technical training to farmers. The knowledge and skills of students and teachers could be sharpening through training, and exposure visits at district/state/national level. The responsibility of students is to provide support to other farmers in their respective or neighboring village. It serves as a mechanism for farmer-to-farmer extension at every block.

Commodity Interest Groups (CIGs), Farmer Interest Groups (FIGs) and Food Security Groups (FSGs)

These are operational at village level to serve as a nodal point for information and technology dissemination among its members. The CIGs, FIGs are organisation of farmers at local level who are come together to form a group on the basis of their common interest. The FSGs are specially created for women to encourage them to participate in activities (kitchen gardening, small scale value addition) which can provide food security of the family as well as community.



Organizational structure of ATMA

Agricultural Technology Information Centre (ATIC)

It is also known as SINGLE WINDOW SUPPORT SYSTEM

The foundation stone of agricultural revolution has been the accessibility of improved varieties of crops, breeds of livestock including poultry and fisheries, horticultural plant materials and improved management practices for improved productivity, sustainability and stability of various crop and livestock enterprises. This has raised the hunt by farmers for future availability of seed, planting materials and other materials, trouble-free accessibility to diagnostic services for soil fertility and plant protection, availability of appropriate information through leaflets and pamphlets and increased scope in sale of consultancy services.

Habitually the farmers are not aware as to whom and where to approach for field problems. It is felt that the facilities of a single window approach will enable farmers to have the required information for the solution to their problems related to the areas in which the concerned institute is involved. With these views, the ICAR has taken decision to set up ATICs as a part of World Bank funded National Agricultural Technology Project. In Gujarat, all SAUs are having such centers.

Agricultural Technology Information Centre (ATIC) a **single window support system** linking the various units of a research institutes with intermediary users and end users (farmers) in decision making and problem solving exercise.

The rationale for establishment of ATIC are

1. To provide diagnostic services for soil and water testing, plant and livestock health.
2. To supply research products such as seeds and other planting materials, poultry strains, livestock breeds, fish seed, processed products, etc, emerging from the institution for testing and adaptation by various clientele.
3. Providing information through published literature and communication materials as well as audio—visual aids.
4. Providing an opportunity to the institutes/SAU/s to generate some resource through the sale of their technologies.

The important criteria of Agricultural Technology Information are

1. Availability (or accessibility) of new technologies,
2. Relevance of new technologies;
3. Responsiveness of new technologies to the needs of different categories of farmers; and
4. Sustainability of such unit within the overall institutional system

By building on the past investment in infrastructures in these institutions considerable farm worthy techniques/ technologies/ knowledge material have been developed in the institutions which can provide the techniques, technologies, seeds and planting materials to the farmers and other organizations for taking up the frontier technologies, to the field. This will facilitate

in dealing effectively with the complexity and diversity of information system and channels. Such information will be useful for:

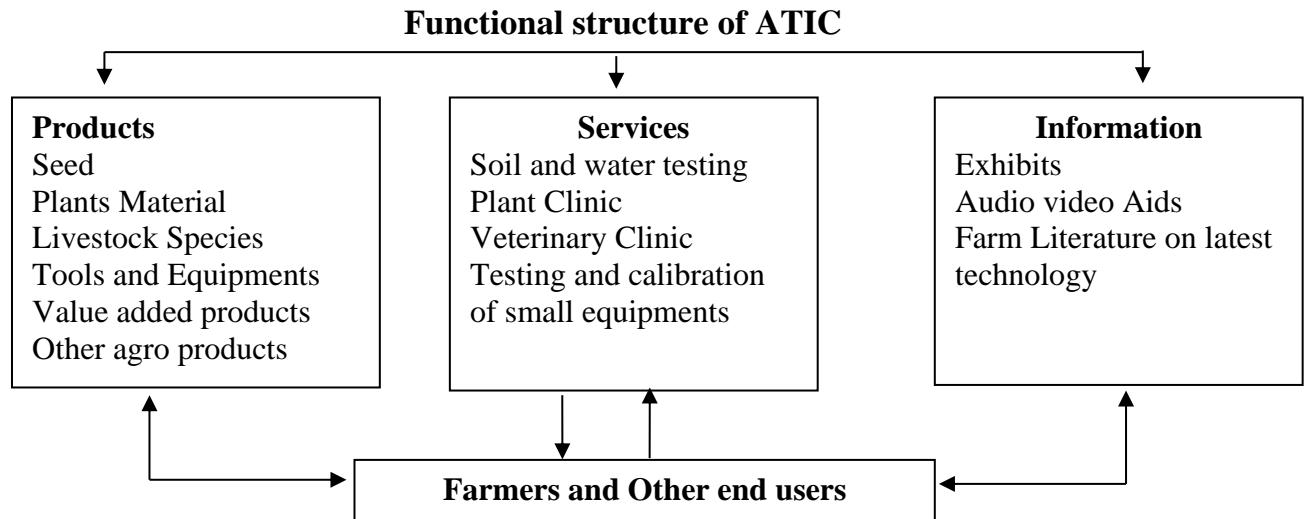
1. Farmers
2. Farmer-entrepreneurs
3. Extension workers and development agencies
4. NGOs and
5. Private sector organization

Objectives of the center:

1. To provide a single window delivery system for the products and species available from an institution to the farmers and other interested groups as a process of innovativeness in technology dissemination at the institute level.
2. To facilitate farmers to access the institutional resources available in terms of technology, advice, technology products etc. for reducing technology dissemination losses.
3. To provide mechanism for feedback from the users to the institute. In addition to supporting individual farmers groups, public and private agencies in supplying quality materials technology, technologies knowledge etc. The information, services and supplies will include:
 - Soil and water sample testing facilities
 - Plant clinic and diagnostic center
 - Biofertilizers and bio-pesticide
 - Bio control agents
 - Seed and planting material, small implements
 - Fertilizer quality testing
 - Insecticide quality testing
 - Tissue culture and plant material
 - Farm literature: leaflets, pamphlets, journal / magazines, booklets, manuals etc.
 - Audio and video on crops and other enterprises.
 - Process products: Cereals, milk, meat, fish, vegetable, fruits, mushroom, honey etc.
 - Cafeteria – (Tea/Coffee/Lassi/Cold drinks/Snakes etc.)
 - Technology Park (Display/Exhibition)
 - Veterinary- Animal clinical service for small as well as large animals
 - Poultry and livestock breeds, fish seed etc.

Thus major objective of this system is to supply all the information on technologies, techniques and knowledge and necessary inputs and materials including planting materials, seeds advisory services, diagnostic services from the one place. It receives feedback from the farmers regarding the services of the host institute.

The Functional Structure of ATIC



New Trends in Agriculture Extension approaches

Extension has been, and still is, under attack from a wide spectrum of politicians and economists over its cost and financing. As a result, Extension Systems have had to make changes, by restating the system's mission, developing a new vision for the future, and formulating plans for the necessary transition to achieve the desired change.

1. Privatization of Agricultural Extension Service

Privatization: Process of funding and delivering the extension services by private individual or organization is called Private Extension.

Concept: Privatization of extension refers to services rendered in rural area & allied aspects of extension personnel working in private agencies or organization for which farmers are expected to pay a fee & it can be viewed as supplementary or alternative to public extension services (Sarvanan & Shivalinge 1980).

Privatization approaches

- Share cropping system
- Village extension contract system
- Public extension through private delivery
- Service for vouchers

Strengths of Private Extension System

- More demand - driven rather than supply – driven
- High quality of services in terms of satisfying information needs of clientele, trained manpower, sustained finances and resource allocation
- Provides for an information mix and choices available to farmers
- Enhanced efficiency of staff
- Assure continuous supply and quality agricultural products
- More effective because farmer can select an adviser who is the best able to help
- Healthy competition among service provider will lead to better quality and lower costs for service

Weakness of Private Extension System

- Concentrate on area having favorable physical environment
- More face-to-face contacts (person oriented)
- Increased dependence of farmers and hence exploitation
- No education role
- Deprivation of small farmers
- Hamper the free flow of information

2. Cyber Extension or e-extension

Concepts

Cyber space: it is the imaginary or virtual space of computers connected with each other on Networks, across the Globe.

Cyber extension: it means “using the power of online networks, computer communications and digital interactive multimedia to facilitate dissemination of agriculture technology.

Cyber Extension thus can be defined as the extension over cyber space.

Important tools of cyber extension

E-Mail, Telnet, File Transfer Protocol (FTP), Gopher, Archie and World Wide Web (WWW)

Strengths of Cyber Extension

- Access to the astounding information and continuously available
- Information rich and instantaneously available of information
- Interactive communication
- The information is available from any point on the globe
- Communication is dynamic
- Cut steps from traditional process
- Save money, time and effort
- Multiplicity of purpose

Issues and Concerns of Cyber Extension

- Lack of Reliable Telecom Infrastructure in Rural Areas
- Erratic or no Power Supply
- Lack of ICT Trained manpower (willing to serve) in Rural Areas
- Lack of content (locally relevant and in local languages)
- Lack of Information Services to Rural Clientele
- Low Purchasing power of the Rural communities
- Lack of Holistic Approaches
- Issues of Sustainability

Application of cyber extension

- Village information shops Dr. M.S. Swaminathan Research Foundation, Chennai
- Information villagers MANAGE in Ranga Reddy District in Andhra Pradesh
- Gyandoot net initiative of District Dhar, Madhya Pradesh.
- Warna wired village of National Informatics Center (NIC) in Kolhapur- Sangli Districts of Maharashtra

Some ICT initiatives in India:

Sr. No.	Name of the project	Particular
Web Portals		
1.	aAQUA	Online discussion, archived, multi-lingual and multimedia based.(www.aaqua.org).
2.	KISSAN Kerala	Content processing and dissemination system. Online information, video channel, Tele-advisory, SMS and GIS based agro-services (www.kissankerala.net).
3.	TNAU AGRITECH	Dynamic portal and e-linkage with research stations and farm sciences centres for agro-advisory services (www.agritech.tnau.ac.in).
4.	AGRISNET	Agriculture Resources Information System Network (AGRISNET) is a mission mode project funded by the Ministry of Agriculture, Government of India to develop a comprehensive online knowledge portal to disseminate relevant information to farmers. Under this scheme most of the State Governments established information rich agricultural websites. For example. Sikkim AGRISNET, Andhra Pradesh agriportal, Uttar Pradesh (UP) Agrisnet, Knowledge Portal (http://agriculture.up.nie.in).
5.	DACNET	In DACNET, 46 web sites and 39 applications are developed, which include web portals on complete information on 9 crop directorates, extension services, Integrated Nutrient Management, Marketing, Mechanization and Technology, Economics and statistics (www.dacnet.nic.in)
6.	e-Krishi	Web based farm advisory services, market information resource library and online expert advisory (www.ekrishi.org).
7.	ASHA	Relevant and need based agricultural information for the farmers of Assam state of the North-East India. (www.assamagribusiness.nic.in).
8.	India Development Gateway (InDG) portal	Multilingual portal for agriculture and other rural information. Decentralized content management system by 225 institutional partners and others (www.indgdn).
9.	Rice Knowledge Management Portal (RKMP)	Comprehensive information portal on Rice. Separate domains for farmers, extension personnel and researchers and also e-learning platform is unique feature of this portal (www.rkmp.co.in).
10.	Agropedia	Agriculture knowledge repository of universal meta models and localized content for a variety of users with appropriate interfaces. Built in collaborative mode in multiple languages. Currently hosts nine thousand pages (agropedia.iitk.ac.in) Web Portals for Market Information

		and Agri-Business Firms' Portal to Farmers.
11.	AGMARKNET	Market information portal for 2000 markets and 300 commodities in India (www.agmarknet.nic.in).
12.	ITC-e-Choupal	An innovative trading and e-Commerce initiative in agriculture. Reaches 4 million farmers by 6500 e-Choupals spread over 40000 villages of rural India (www.echoupal.com).
13.	EID Parry	Indiagriline Information and knowledge solutions through Cane Management System and also other support services to farmers at seventy Namadhu Parry Mayyam outlets (Our Parry Centres). SMS alerts for farmers and cane field staff to plan their activity. Centre establishment, operating and service charge is recovered from the farmer from the sugarcane payments.
14.	Indiancommodities.com	User fee-based market information on Cotton, Sugar, Oilseeds, Pulses, Spices, Rice, Wheat, Tea, Coffee.
15.	Mahindra Kisan Mitra	Farm Equipment Sector of the Mahindra Group hosted Mahindra Kisan Mitra, a web portal for the Indian farmers to access wealth of information which is updated on a daily basis. Farmers can check daily mandi prices, read weather updates, latest crop advisories, and agri. related news. The site also provides information of other sections such as crop information, loans, insurance, mandi database, cold storages/warehouses etc.
16.	IFFCO	Agri-Portal Information for farmers in local language. Web portal and 100 farmers' information kiosks in 16 States.
17.	Agriwatch Portal	The agriwatch.com is the largest agribusiness portal in India and enables access to a large amount of agribusiness related information covering more than 15 sub sectors within the agricultural and food industry. The daily, weekly and fortnightly Agriwatch trade research reports are published
18.	i Kissan	It is a Nagarjuna group initiative to provide agriculture information; specific package of practices of crops, animal husbandry, aromatic and medicinal plants, agricultural machinery, allied agriculture, sprayers, rural credit, insurance iKisan crop solutions to the farmers. i Kisan has developed easy-to-use diagnostic packages for different crops which will be provided on demand. Further, it also provides local agri news, weather and market information to the farmers.

19.	Village Knowledge Centres (VKCs)	Founded by M.S. Swaminathan Research Foundation (MSSRF). 101 VKCs were established in Tamil Nadu, Pondicherry, Orissa, Andhra Pradesh and Kerala. VRCs and VKCs are working with 315 partners for implementation and location specific content generation. Demand driven information and knowledge with support services, social inclusion, community ownership and partnership proved critical for the success and sustainability of the initiative.
20.	Village Resource Centres (VRCs)	A collaborative initiative of Indian Space Research Organization (ISRO) and M. S. Swaminathan Research Foundation (MSSRF). 473 VRCs have been set up in 22 States / Union Territories in India. The VRCs are connected to Knowledge/Expert Centres like Agricultural Universities and Skill Development Institutes (SDI).
21.	Community Information Centres (CICs)	Community information centres in North-East India e-Infrastructure for accessing rural information needs of farmers and others.
22.	Lifelines India	Connectivity by innovative mix of internet and telephony. Reaches 200000 farmers in three states of India
23.	IFFCO Kisan Sanchar Limited (IKSL)	Voice messages in local languages. 10 Lakh activefarmers benefiting from IKSL's Value Added Services and IKSL enrollment crosses 4 million and 40000 cooperative societies as IKSL retailers.
24.	Fisher Friend	QUALCOMM, MSSRF, Tata tele services and Asutesystem technology jointly implemented mobile based advisory services (instant access to helpful information such as weather conditions, where they can and cannot fish and market prices) to fishing communities of costal Tamil Nadu since, 2007.
25.	Reuters Market Light (RML)	Micro-information Services designed specifically for the farming community was launched by RML in 2009. Currently covers over 440 crops and varieties with more than 1400 markets and 2800 weather locations of 15000 villages in 13 States of India. Timely and personalized information and individual farmers have secured significant return on their investment.
Hybrid Projects (Mix of ICTs and conventional extension methods)		
26.	e-Arik	Internet, Offline CDs and farmer-to-farmer communication and conventional extension methods.

27.	e-Sagu	Agro-advisory services by digital photographs and coordinators for farmers. Jointly developed by Media Lab Asia and IIT Hyderabad. Started in Telangana and Andhra Pradesh.
28.	Digital Green	Farmer participatory video production for agricultural extension. 1681 videos produced and 60313 farmers involved.
29.	Knowledge Share Centres	Information by touch screen kiosks, IVRS, bilingual web portal and awareness created by screening films & CDs by the Central Research Institute for Dry land Agriculture (CRIDA), Hyderabad. Project covered 51 villages in eight districts of Andhra Pradesh.

3. Market-Led-Extension (MLE)

Concepts

Market: A congregation of prospective buyers & sellers with a common motive of trading a particular commodity.

Extension: It is the spreading/reaching out to the mass

Market-led-extension: Agriculture & economics coupled with extension is the perfect blend for reaching at the door steps of common man with the help of technology.

Dimensions of market-led extension

- Marketing mix: A planned mix of the controllable elements of a product's marketing plan commonly termed as 4Ps: product, price, place, and promotion. These four elements are adjusted until the right combination is found that serves the needs of the product's customers, while generating optimum income.
- Marketing plan: A marketing plan is a comprehensive document that outlines a business and marketing efforts for the coming year. It describes business activities involved in accomplishing specific marketing objectives within a set time frame. A marketing plan also includes a description of the current marketing position of a business, a discussion of the target market and a description of the marketing mix that a business will use to achieve their marketing goals.
- Market Intelligence: It is the information relevant to a company's markets, gathered and analyzed specifically for the purpose of accurate and confident decision making. Market intelligence includes the process of gathering data from the company's external environment, whereas the business intelligence process is primarily based on internal recorded events – such as sales, shipments and purchases.
- Market oriented production
- Use of Technology

Strengths of market-led extension

- SWOT analysis of the market
- Organization of Farmers' Interest Groups (FIGs)
- Enhancing the interactive and communication skills of the farmers
- Establishing marketing and agro-processing linkages
- Advice on product planning
- Educating the farming community
- Direct marketing
- Acquiring complete market intelligence
- Publication of agricultural market information

Production of video films of success stories

- Challenges to market-led extension
- Gigantic size of extension system
- Information technology v Diverse conditions
- Market intelligence

- Reforms in agricultural extension system

Government Initiatives

- Central warehousing Corporation-1965
- MSP by Commission for Agricultural Cost and Price (CACP)
- Food Corporation of India
- Then some others as: Cotton Corporation of India (CCI), Jute Corporation of India (JCI), National Dairy Development Board (NDDB), Agriculture and Processed food Export Development Authority (APEDA) etc.

4. Farmer--Led-Extension (FLE)

Farmer--led-extension is defined as “the provision of training by farmers to farmers, often through the creation of a structure of farmer promoters and farmer trainers” (Scarborough et al., 1997).

Philosophy and principles

- Farmers and local institutions (e.g. producer organizations or village leaders) should play a key role in selecting farmer-trainers and monitoring and evaluating them. This helps make the programmes more accountable to the community or groups that they serve.
- Farmer-trainers are ‘of the community’; they communicate in local languages and are more sensitive to local cultures, mannerisms, farming practices, and farmers’ needs.
- Farmer-trainers should be selected on the basis of their skills and interest in sharing information, not just on their farming expertise.
- Farmer-trainers need strong linkages with and support from development agents (whether government, non-government organization (NGO), or private), the people who train and backstop them. Farmer-trainers generally serve as a complement to existing extension systems, rather than being a substitute for them.
- Facilitating organizations and local institutions need to be proactive in ensuring that women as well as men become farmer-trainers.
- Simple and appropriate reference materials should be made available to the farmer trainers.

Essential Elements of Farmer--led-extension

- The group
- The Field
- The Facilitator
- The curriculum
- Programme leader
- Financing

Special features of Farmer--led-extension

- All learning is field based & it is primary venue for learning
- FLE group learning constantly over the experimentation period
- FLE promotes healthy decisions & quality decisions
- Farmers conduct their own field studies with comparisons or treatments
- Facilitates Farmer-to-Farmer communication
- Field staff serve as facilitators
- FLE is a unique way to educate farmers
- It is an effective platform for sharing of experiences and collectively solving agriculture related problems.

5. Expert system

Expert system is an intelligent computer program that uses knowledge and inferences procedures to solve problems (Daniel Hunt, 1986).

Objectives of developing expert system

- To enhance the performance of agricultural extension personnel and farmer
- To make farming more efficient and profitable
- To reduce the time required in solving the problems
- To maintain the expert system by continuously upgrading the database

Advantages of expert system

- Solves critical problems by making logical deductions without taking much time
- It combines experimental and conventional knowledge with the reasoning skills of specialists
- To enhance the performance of average worker to the level of an expert

Limitations of expert system

- Expensive computer program
- Mostly developed not in regional languages
- Requires AC power and internet connection all the time
- Complex software requires computer skilled personnel

Modules of expert system in agriculture

- COMAX: Integrated crop management in cotton
- SOYEX: Soybean oil extraction expert system
- PLANT/ds: Diagnosis of soybean diseases
- MAIZE: Maize expert system for field crop management
- SEMAGI: Weed control decision making in sunflowers
- Rice Crop Doctor: Developed by National Institute of Agricultural Extension Management (MANAGE)

Difference between conventional and expert system of extension (Bahal *et.al.*, 2004)

Conventional Extension	Expert System of Extension
➤ Universal approachability of same information is a problem	➤ Universal approachability of same information is possible
➤ Information is given whatever is available without considering needs and resources	➤ Information is chosen based on their needs and resources
➤ No Cost benefit analysis	➤ Cost benefit analysis
➤ Information flow depends on availability of agent	➤ Information through Cyber Cafe at any place at any time
➤ Require users to draw their own conclusion from facts	➤ Conclusion is drawn based on the decision given by the expert

Monitoring and Evaluation

Concept

Monitoring and Evaluation are the two management tools that help in keeping a control on the business activities as well as raising the level of performance. **Monitoring** refers to an organized process of overseeing and checking the activities undertaken in a project, to ascertain whether it is capable of achieving the planned results or not. Conversely, **evaluation** is a scientific process that gauges the success of the project or program in meeting the objectives.

Definition of Monitoring

Monitoring is the systematic process of observing and recording on a regular basis, the activities carried out in a project, to ensure that the activities are in line with the objectives of the enterprise.

Monitoring takes into account optimum utilization of resources, to assist the managers in rational decision making. It keeps a track on the progress and checks the quality of the project or program against set criteria and checks adherence to established standards.

The information collected in monitoring process helps analyse each aspect of the project, to gauge the efficiency and adjust inputs wherever essential. It keeps track of project inputs and outputs such as:

- Activities;
- Reporting and documentation;
- Finances and budgets;
- Supplies and equipment.

Definition of Evaluation

Evaluation is defined as an objective and rigorous analysis of a continuing or completed project, to determine its significance, effectiveness, impact and sustainability by comparing the result with the set of standards. It is the process of passing value judgment concerning the performance level or attainment of defined objectives.

In short, evaluation is a process that critically assesses tests and measures the design, implementation and results of the project or program, in the light of objectives. It can be conducted both qualitatively and quantitatively, to determine the difference between actual and desired outcome.

Difference between Monitoring and Evaluation

Indicators	Monitoring	Evaluation
Meaning	Monitoring refers to a routine process that examines the activities and progress of the project and also identifies bottlenecks during the process.	Evaluation is a sporadic activity that is used to draw conclusion regarding the relevance and effectiveness of the project or program.
Related to	Observation	Judgment
Occurs at	Operational level	Business level
Process	Short term	Long term
Focuses on	Improving efficiency	Improving effectiveness
Frequency	Continuously throughout the life of a project	In the middle and at the end of a project
Main Action	Keeping track of progress	Assessment of progress
Main participants	Project staffs, partners and stakeholders	External evaluators, facilitators, project staffs, donors and stakeholders
Information Sources	Internal documents monthly/ quarterly reports, work plans, travel logs, minutes	Both internal and external documents policy documents
Undertaken By	Often done by internal staffs, project Managers, field officers and supervisors	Often done by external evaluators, Project staff, or participatory
Relation to Design	Usually accepts design	Usually free to challenge design
Answer for	Answers what activities were implemented	Answers why and how results were achieved. Contributes to building theories and models for change

Transfer of Technology (ToT)

There is increasing use of the term transfer of technology (TOT) by extension practitioners now a day. Can technologies be transferred mechanically in linear fashion? Do the terms 'extension' and 'TOT' mean one and the same thing? TOT includes more than mere dissemination of information. There are many conceptual model of TOT emphasizing on different elements of process. Extension can play crucial role in preventing imbalances caused due to input intensive of new agricultural technology among resource poor farmers. In fact, extension can create awareness and equip both farmers and scientists to work together to generate technologies appropriate to the local situation. It requires new methods and perspectives to work in close touch with people. It is in this context that new concepts like Farming System Research and Extension, Participatory Technology Development, Participatory Rural Appraisal, Rapid Rural Appraisal, Indigenous technological Knowledge, etc. are becoming more meaningful.

Technology refers to ways to making or doing thing. The term 'technology' derived from the Greek word '*tekhne*' meaning 'art' or 'craft' and logia, meaning an 'area of study'.

In past, technology often ran ahead of science. Things were often done without precise knowledge of how or why they are done except that they were effective. Technology is as the means by which material / things are being produced. It is the application of science and technical advance to the production of materials to serve human needs. The technology is a replaces of human energy by mechanical energy, using natural sources of energy.

The degree of acceptance of a technology depends on five criteria: (i) relative advantage, (ii) compatibility, (iii) minimum complexity, (iv)trialability and (v) observability.

The concept of technology can be defined simply to mean the application of science in the development, production, utilization or application of materials or things or methods of undertaking a certain activity or work (Hashim, 1978).

Technology is scientific knowledge which is being utilized to solve various practical problems experienced by mankind.

Samanta (1985) defined agricultural technology as a body of systematically organized knowledge and materials applicable to local production problems to help to boost thepresent level of productivity and or extend the existing range of production.

What is Transfer of Technology?

Transfer of technology can be defined as the movement of relevant agriculture information from a research (source of technology) or an innovation system through extension system (which acts as an interpreter, disseminator and facilitator) to the client (consumers of technology) system, i.e., the target group of farmers who are expected adopt and integrate the new technology into the existing farming systems and practiced (Samanta, 1985).

Extension vs ToT

One of the goals of extension is to transfer technology and in the process the extension agent is involved in education of farmers as well as arranging for the technical inputs and services, and hence, many people consider extension and transfer of technology as one and the same. However, Swanson and Claar (1984) argued that though extension is an essential and major part of technology transfer the terms are not synonymous. Transfer of technology

includes additional 'function of technical input services. On the other hand extension is concerned mainly with education of farmers on management of resources and decision-making skills, which may contribute to technology transfer. Hence, it is necessary to understand that the focus of extension is on education of the farmers rather than supply of technical inputs and services. Because of the misconception about the role of extension, many institutions lay emphasis on supply of inputs and technical -services, which are included as extension activities. However, extension agencies 'frequently engage in activities that are not directly connected to extension education such as provision of inputs, supervising credit repayment, enforcing 'government regulations, providing statistical information, organizing cooperatives etc, (Arnon, 1989). Whether supplying of technical inputs and services is a part of 'extension' or not is still a debatable issue.

Models of TOT

1) Top-down-Model (Conventional Model) Salient features of Top-down Model

- Farmers were seen as passive recipient of technologies.
- There was little or no contact between farmers and scientists.
- Role of extension was to persuade farmers to adopt new technologies.

Such approach was evident in green revolution. In this model/approach client's problems and views were not given due consideration for solving their problems. The T & V system is one of the examples of top down ToT model.

2) Feedback Model

This model has become popular with the growth of FSR and incorporation of on farm experimentation into agricultural research methodology.

Salient features:

- Researcher values identification of target group, his problems and reaction.
- Close interaction between research and extension system.
- Researches are carried out both on research farm as well as farmers fields.
- Team of researchers included extension personnel as well as social scientists to have a holistic understanding of farmers' problems.

3) Farmers Participatory Models:

There is recent need trend to strengthen farmers' capacities for research and extension for enhancing sustainable development in rural areas. The new model is based on several observations about the research and extension initiatives in many areas of the world. By virtue of keen interest, strong affiliation with vocation and experience, farmers have inherent interest in experimentation with new way of farming. Their indigenous wisdom and understanding of agro ecological conditions are great resources for evolving appropriate technologies. Thus new model had taken a stand that researches must begin and end with farmers.

The characteristics of such approach are as given below:

1. Farmers are seen as active partner in research and extension.
2. Indigenous wisdom possessed by farmers are valued and considered.
3. Research is seen a joint endeavour involving farmers and researchers to solve problems being faced by farmers.
4. Establishment of physical infrastructure and educational facilities for strengthening local experimentation is an essential aspect of participatory model.

5. It emphasis on the need for scientists to become more sensitive to understand, communicate and collaborate with farmers.

ATMA is an example of this type of ToT model.

4) Farmer-back-to-Farmer Model

An alternative to the above two models is the 'Farmer-back-to- Farmer' model (Rhodes and Booth, 1982). The underlying assumption of the model is that research must begin and end with the farmer. It turns the top-down model completely on its head by starting with the farmers. This means that farmer must be incorporated as fully active members of the problem solving team.

AGRICULTURAL EXTENSION EDUCATION

Faculty	: Agriculture
Semester	: Fourth (Theory)
Credit	: 2+0=2
Course no.	: Ag. Extn. 4.2

Ag. Ext. 4.2 Rural Sociology & Educational Psychology (2+0= 2)

Theory

Sociology and Rural sociology: Definition and scope, its significance in agriculture extension, Rural society, Social Groups, Social Stratification, Culture concept, Social Institution, Social Change & Development.

Educational psychology: Meaning & its importance in agriculture extension. Behavior: Cognitive, affective, psychomotor domain, Personality, perception, Instincts, Emotion, Frustration Motivation, Theories of Motivation, Types, Classification of Motives, Techniques of motivation and Role of Motivation in Agricultural Extension.

Teaching-Learning: Meaning, Definition, Learning process, Learning experience and Learning situation its elements and characteristics.

Rural Leadership: concept and definition, types of leaders in rural context, methods of identifying the leader.

In the scientific age, knowledge is being developed about everything related to human beings. Social Science studies the various activities related to human society. It is more precisely the systematic study of human relationships, the study of psychic interactions between individuals; who come into association in groups, with the necessary and accompanying study of the inter-relationships of groups, with the necessary and accompanying study of the inter - relationships of groups and of social systems. When its field is limited to a particular area it can be named Sociology of Family, Urban Sociology, Rural Sociology, and so on.

SOCIOLOGY

Sociology is the science of society.

It may be defined as the study of the ways in which social experiences function in developing, functioning, maturing and repressing human beings through inter- personal stimulation. Since these ways of making and re-making the members are social processes, sociology may be said to be a study of social processes.

Sociology is really a body of facts and principles which are based on scientifically organized knowledge. To study the social relationship is its subject - matter.

Sociology is the scientific study of people in group relationships. Sociologists utilize scientific methods in their research studies to develop a body of accurate and reliable knowledge about human

relationships. The contents or subject matter of sociology is not literary writing as is assumed by many people. It is a detailed and systematic study of society. There are animal societies also but sociology studies only human societies. Human beings have progressed to a large extent and therefore, sociology is used for the systematic study of the human beings in group relations.

Secondly, sociology is concerned with people and without people or human beings, there cannot be any sociology. It cannot be in isolation as its main emphasis is on people. These people are not studied as individuals but rather in their relationship with other persons. They stay in groups and therefore the sociologists study people organized in families, friendship groups, temples, schools, industrial plants and in other organizations. In short, sociology studies the social behaviour of people, their different social groups, and the intra - and interrelationship of these social groups. Intrarelationship is the relationship of individuals with in the group. Interrelationship is the relation of the groups among themselves.

RURAL SOCIOLOGY

It is the study of the sociology of life in the rural environment which systematically studies rural communities to discover their conditions and tendencies and to formulate principles of progress.

It is made up of two terms: Rural + Sociology, so it is limited to the study of various aspects of rural society. Its function is "to assemble.... the essential facts and the basic principles that have been derived from the application of the scientific method in the study of rural - social relationship."

According to F. Stuart, the Sociology of rural life is a study of rural population, rural social organizations and the social processes operative in rural society. Probably, it is more logical, however, to refer to it as systematized knowledge of rural social relationships.

So it is clear that rural sociology is related to the organized and scientific study of the life of rural people and heir inter-personal relationship. According to Chapin, the sociology of rural life is a study of rural population and the social processes operative in rural society. In this way, under rural sociology, we study all the phenomenon of rural life. Supporting this view, Smith says, " Some investigators study social phenomenon that are present only in, or largely confined to the rural environment, to persons engaged in the agricultural occupation. Such sociological facts and principles as are derived from the study of rural social relationships may be referred to as Rural Sociology."

According to Desai, "Rural sociology is the science of rural society. The laws of the structure and development of rural society in general can aid us in discovering the special laws governing a particular society."

Rural sociology as a science

As a science it is to be judged by the criteria: (a) the reliability of the body of knowledge, (b) its organization, and (c) its method. Rural sociology as described here fulfils these three conditions.

1. Reliable knowledge:

In order to have a science, an organized body of knowledge must be developed which has been tested for validity and reliability by the best known scientific methods. As to its body of reliable knowledge, rural sociology, though is a young science, has made a very good beginning in institutions, the processes of rural social change, etc. Despite the difficulties involved in the scientific and systematic way of studying sociology the general knowledge and data are reliable. Keeping in view the difficulties of rural sociology is facing, its knowledge and data are reliable.

2. Organization of knowledge:

The organization of a science rests upon the relationships which the parts of knowledge bear to each other. In sociology, there are many inter - relationships, that require many tools for discoveries.

3. Rural sociology as a method:

just as in a laboratory experiment in physics accurate observations are made, so in rural sociology, we try to do essentially the same thing, not in a laboratory, but with statistics. For instance, if we want to

know whether families with low incomes have more infant deaths, we do not get 500 rich mothers and 500 poor mothers and put them in a room and watch the babies die. Instead, we collect statistics or data. But first we must hold constant the type of food, the customs associated with ethnic groups and finally the race. By studying and varying the factor of income and infant deaths, and by keeping other factors constant, it is shown that by increasing the income alone can we save the lives of babies.

So in rural sociology, the scientific method of study is strictly followed. All the steps of scientific approach are necessary in analyzing and planning a community development programme scientifically. In the study of rural society, we need social statistics, social surveys, case studies, community studies, etc. In the absence of a scientific approach, the village problems cannot be studied. In such studies we formulate generalized principles and laws on the basis of which to forecast future trends. In rural sociology, an attempt is also made to find the relationship of cause and effect, which is the first necessity of science. As this science has all the qualities expected in a social science, we can conclude that rural sociology is a science.

MEANING OF RURAL SOCIOLOGY

After knowing sociology, rural sociology should now be understood. Rural sociology is the systematic study of people living in rural areas and who are living by or are immediately dependent on agriculture. As stated earlier, Sociology refers to man regardless of whether his residence is urban or rural. However, the majority of the people lives in villages and rural areas and follows patterns of occupation and life somewhat different from those living in urban areas. The way of life they lead is influenced by their rural environment. Sociology is the scientific study of people in group relationships. In rural sociology the focus is on people living in rural areas.

Rural sociology is expected to develop greater understanding of the behaviour of rural people and rural society. In addition to providing scientific knowledge about rural society and laws governing its development, it should serve as a guide and suggest practical programmes of reform or construction of that society in the economic, social and cultural fields.

NATURE OF RURAL SOCIOLOGY

Whatever may be the subject-matter, the question arises whether its way of achievement is scientific or not. On this basis, we can judge the nature of rural Sociology. In the collection of facts for any knowledge, when we apply a scientific method, it is called a science. So, science goes with the method, not with the subject - matter.

Before discussing the nature of rural Sociology, it is necessary that we understand the meaning of scientific method. Discussing this topic, Lundburg says, "Scientific method consists of systematic observation, classification and interpretation of data." On the various aspects of scientific method, Bernard writes, "Science may be defined in terms of the six major processes that take place within it. These are testing, verification, definition, classification, organization and orientation, which include prediction and application."

Further Lundburg says that "Social scientists are committed to the belief that the problems which confront them are to be solved, if at all, by judicious and systematic observation, verification, classification and interpretation of social phenomena. This approach in its most vigorous and successful form, is broadly designated as the scientific method"? If we examine the earlier efforts made to improve economic standards, to improve agriculture, to solve the problem and for welfare. All these rural dimensions can be studied with reference to the definition of rural sociology so, the nature of rural sociology is completely scientific and it is a social science.

SCOPE OF RURAL SOCIOLOGY

India has been described as a country of villages. In India, about 75 percent of the population lives in about six million villages. This means that India's sociology is the sociology of mainly the rural life, or rural sociology. Because of this fact, India's struggle to achieve political freedom was the struggle for Rural Development Programmes. After achieving political independence, the Indian Government launched the Rural Development Programmes. These are; (1) The Five-Year Plans, (2) Community Development Projects, (3) Reviving the Village Panchayats through Panchayati Raj Programme, (4) Development of Cooperatives, (5) Rural Educational Programmes, and (6) Bhudan Yajna, etc.

Rural sociology is a study of rural social happenings. Regarding the scope of the subject, all the writers have different views. Some of them have limited it to rural development only. On its scope, Desai writes: "Should rural sociology only provide scientific knowledge about rural society and laws governing its development, or should it also serve as a guide and suggest practical programmes of reform or reconstruction of that society in the economic, social or cultural fields?"

Generally, all writers agreed that rural sociology is the analysis of the life of rural people. Smith supporting this view writes: "All of them unanimously declare that the prime objective of rural sociology should be to make a scientific, systematic and comprehensive study of the rural social organizations, of its structure, functions and the objective tendencies of its development."

Rural sociology studies the relationships and interaction in the village society, so its scope is very wide. From this, it is also expected that it will study the non-material culture of village people and the effect of the material culture of the urban population on rural people. The studies in rural sociology include:

1. The social psychology of life,
2. The rural social organization, and
3. The social values, which are advantageous for any development programme.

Rural sociology has become an important aspect of the science of sociology and has made a unique contribution on its own. Most of the people of the world are rural and most of them live in the so-called, under-developed areas. These people are reproducing at a faster rate than those in the more advanced areas and if these trends continue, will finally dominate the world.

IMPORTANCE OF RURAL SOCIOLOGY IN AGRICULTURAL EXTENSION

After achieving independence the country had to face the task of tackling widely diverse problems of which acute food shortage was the main problem. The rapidly increasing population was to be fed by increasing food production which was among the lowest in the world. The main difficulty in this process was not the know-how of the new technology but the difficulty of communicating it to the farmers in an acceptable form. After communicating this scientific knowledge and skills, it was necessary to help the farmers in adopting it. Realizing this difficulty, channels of communication were established by launching the National Extension Service in 1953. The change agents like village level workers were posted in villages for bringing about change in the village community. The efforts of the village level workers were coordinated at block and district levels. The change agents required sufficient technical knowledge and skill in the improved agricultural practices to be introduced among farmers. They also needed skill in communicating this knowledge of practices to the farmers.

Transfer or communication of innovations is the main job of these change agents. But for introducing improved farm practices, an effective strategy of approach based on a thorough knowledge and understanding of the farmers, his social and cultural environment within which he operates in his social and cultural environment within which he operates in his home, his village and the local region is necessary. Rural sociology provides such knowledge and makes possible the planning of a strategic approach for the desired changes. It allows constant analysis of the rural situation and within reasonable limits prediction of possible results.

From this point of view the main emphasis in the community development programmes is on changing human behaviour and working with rural people by using educational (democratic) methods. For doing this, as stated earlier, the change agent must have adequate knowledge and skill in methods of communication. In addition to this the change agent must know what is going on in the minds of rural people, their relationships and interactions, their groups, their institutions, their organizations and the culture they share. All these factors influence the farmer's behaviour. The knowledge regarding these factors is provided by rural sociology. In the absence of this knowledge of rural society the change agent will not be able to plan a proper strategy of change. The change agent in the first instance has to understand the programmes and their objectives. Secondly, he must know the currents of thoughts in the minds of the people with whom he works. He needs to understand their motives, their reactions and their receptivity to new ideas. He should also understand why some people are more receptive than others, why some people take the initiative and lead and why others hesitate.

Thus an understanding of rural people and their life is essential for the change agent. Due to this he will be able to gain deep insight into the behaviour of rural people and the influence of their culture and society on them. He will also understand the human forces which can help and others that will put obstacles in his efforts. He will recognize the hidden resources of rural people and know which social and cultural obstacles to avoid rather than try to carry the programme across them. He will become aware of how much is known and how much is yet to be known about the behaviour of rural people.

INTER-RELATIONSHIP BETWEEN RURAL SOCIOLOGY & AGRIL. EXTENSION

Rural Sociology		Agricultural Extension	
1.	It is a scientific study of "the laws of the structure and development of rural society."	1.	It is informal education for the rural people with a view to develop rural society on desirable lines.
2.	It studies the attitudes and behaviour of rural people.	2.	It seeks to modify or change for the better, the attitudes and behaviour of village people.
3.	It studies the needs and interests of rural society.	3.	It helps rural people to discover their needs and problems, and builds educational programmes based on these needs and wants.
4.	It analyses rural social relationships, or group organizations and leadership in rural areas, the social processes like co-operation, association, competition etc. among village people.	4.	It fosters and utilizes village organizations and leadership and favourable social processes, to achieve its objective of rural development.
5.	It studies social situations and assembles social facts of rural society.	5.	It makes use of such social data as a basis for building up its extension programmes. For rural areas.
6.	It investigates the social, cultural, political and religious problems of rural society.	6.	It also studies these problems with reference to their impact on extension work in villages.

IMPORTANT CHARACTERISTICS INDIAN RURAL SOCIETY

Rural people are different from those living in urban areas. These differences are mainly due to the environment and its consequent impact on the personalities and the lives of the people. Here we are mainly interested in the characteristics of rural people. These characteristics are studied in relation to the urban people. Such rural-urban differences are discussed here.

1) **General Environment and Orientation to Nature:**

The rural people are closely associated with nature as they live in that environment. They have to face the vagaries of nature like rains, heat, drought, etc. It has direct effect on their lives. Due to this they build up their beliefs and convictions about nature.

2) **Occupation:**

Most of the rural people depend on agriculture for their livelihood. The non-agricultural jobs are few and are not of much economic importance. In urban areas most of the jobs are non-agricultural and more specialized. In a factory, the jobs of the foreman, manager and executive are different. A farmer on the other hand must be competent in a variety of skills-soil improvement, repairs to machine, skills in controlling pests and diseases, skills in animal husbandry, skills in agricultural economics as business manager as he handles the marketing, distribution, overall planning & operation of his farming enterprise. Farmers thus have to acquire a wide range of ability as compared to the urban workers.

3) **Size of community:**

The rural communities are smaller as compared to urban communities. The land to man ratio is higher in rural areas as most of the rural people depend on agriculture. The density of population per square mile is low as compared to urban areas.

4) **Homogeneity and Heterogeneity:**

Homogeneity is the similarity of social and psychological characteristics in the population such as languages, beliefs, mores and patterns of behaviour. In this sense the rural population is more homogeneous. The urban population is more heterogeneous as it comprises persons from a wide variety of sub-cultures, interests, occupations and patterns of behaviour including language.

5) **Social Differentiation:**

There are many urban services namely, educational, recreational, religious, business and residential. These are intentionally organized to serve specific purposes. These are intentionally organized to serve specific purposes. These services have made the division of labour and differentiated the urban society as per the objective of the services. In contrast, rural society is more homogeneous in nature, relatively independent and with a low degree of social differentiation.

6) **Social stratification:**

Society is divided into high class and low class groups. The high class group is on the top of the ladder, the middle group is in the centre and the low class group is at the bottom. This gap between the high and low classes is more in urban areas as is evident from the wealthy and poor or palaces and slums. This range is not so wide in rural areas. Most of the rural society tends to belong to the middle class. The very rich and very poor move to the city. The rich move to the city as they desire to obtain more than what is provided by the rural areas. On the other hand, the poor move to urban areas in search of job opportunities, in order to supplement their income.

7) **Social Mobility:**

It refers to the movement from one social group to another. It may be in the occupational mobility from one occupation to another, territorial mobility from rural to urban areas, from urban to rural areas or within the rural or urban areas. Social mobility is more from rural areas to urban areas. A series of both horizontal and vertical moves are seen in urban areas.

8) Social Interaction:

The pattern and type of social interaction is different in urban and rural areas. The rural population is smaller and less dense than the urban population. The rural people have fewer personal contacts per individual. The contacts through various mass media like radio, television, magazines, posters, newspapers, etc., are lower in rural areas. The contacts in rural areas are more face to face, informal and personal. The urban contacts may be frequent but they tend to be more cursory, formal and impersonal.

9) Social Control:

Informal social pressures act more as a means of social control in rural areas due to personal and informal contacts. Due to the small size and homogeneity of rural communities there is a more informal atmosphere in rural areas. In urban areas, control is more by formal, impersonal means of law-prescribed rules and regulations with penalties for violation.

10) Leadership Pattern:

There is more fact - to - face contact in rural areas so the leadership is more on the basis of the personal traits of the leaders. The leadership in urban areas is more impersonal.

11) Social Solidarity:

There are more informal non-contractual personal relationships in rural areas. The cohesion and unity in rural areas is due to common traits, similarity of experience and common objectives which are shared by rural people. In urban areas unity and experience are based on differences and dissimilarities, division of labour, interdependence and socialization. There is more impersonal, strictly formal and contractual kind of relationship.

This gap between the rural and urban differences is being narrowed due to the communication of new ideas and the extension of service facilities to rural areas. A complete closure of this gap will not be possible in the near future. However, questions are being raised regarding the desirability of urbanizing the rural area. Instead of this the recent approach is on modernizing the rural area, in which effort is made to utilize the rural environment to benefit the rural people without altering the rural scene to a great extent. Effort is being made to strike an ecological balance in rural areas.

Differences and relationship between rural and urban societies

The comparison between the rural and urban people provides one of the best ways in order to understand the characteristics of rural people and rural life. These are presented below in table:

CHARACTERISTICS	RURAL PEOPLE	URBAN PEOPLE
Orientation to Nature and General Environment	The rural people have to contend with certain elements, which are not in their control for example - flooding frost etc.	Can control that suits desirable.
Occupation	Generally family occupation - a way of life. Farmer possesses a wide area of specialization and skills. The entire family is involved.	Has a specialized occupation.
Size of community	In rural area it is small in comparison to urban.	Large in comparison to rural.
Density of Population	Lower than urban	Higher than rural

Homogeneity and Heterogeneity	In rural area there have been more similarity of language, beliefs, norms etc.	Different language, different culture very little in common.
Social stratification	Rigid caste and class regulations.	Not as rigid in comparison to rural.
Social Mobility	Less in comparison to urban	More as comparison to rural.
Social Interaction	Less exposed to mass media for example, T.V., Radio, Newspaper. More intimate informal and personal contacts.	More exposed to mass media. Formal contacts.
Social Control	Stronger as compare to urban.	Weaker as comparison to rural.
Leadership	More personal due to more face - to - face contact.	Impersonal and formal.
Living Facilities	Poor than urban	More than rural.

Difference between Society and Community

The differences between society and community are presented following Shankar Rao (2012)

Society		Community
Society is wider. There can be more than one community in a society (e.g. The cooperative society, which consist of both Hindu and Muslim people)	1.	Community is smaller than society (Viz., The Hindu Community or Muslim Community).
A society does not denote a definite geographical area.	2.	Community always denotes a definite geographical area.
“We-feeling” and “community sentiment” may or may not be present in society.	3.	“We-feeling” and “community sentiment” are essential elements of community.
Common interests and diverse interest are present in society.	4.	There is common agreement of interests and objectives on the part of the members

SOCIAL GROUPS

From the birth until he dies man associate with groups in some way or other. Societal groups influence his attitudes, thinking and behaviour throughout his life. They deeply influence the development of his personality and play a vital role in his socialization. Man is born into an intimate social group... the family and as he grows, he relates himself to groups outside of his family, interacting with them in various ways. He plays with his neighbour's children and then perhaps goes to the village school with them or with others. At school he participates as a member of the school class, the play group. If there is practical work he may associate with still another group who work with him on a project. These group contacts expanded out ward as he develops and assumes various roles as a member of society.

Definition

A group may be considered as a unit of two or more people in reciprocal interaction or communication with each other. Chitamber, J.B.(1973)

Meaning

- a) Group always consists of at least two or more persons. These two persons must be capable of mental response.
- b) Communication and interaction is essential among or between the persons forming a group.
- c) The communication and interaction needs to be reciprocal - two - way.
- d) The groups can be of long or short duration.
- e) Though the common interest, shared values and norms are found to be important in the groups. All the groups do not share them.
- f) Groups can be formed on the basis of various kinds of situations.

Types of Groups

Social groups are classified from different angles. No single classification is applicable to all type of social groups. Major social groups as classified by eminent sociologists are presented as follows. Groups based on the type of relationship, which exist in them.

(A) Horton (1964) said that the primary groups have relationship - directed, and secondary groups are goal - oriented. Primary groups, however, exist with in the secondary groups and are found to be influencing in the decision making of the secondary group.

- (i) Primary Groups - These generally have intimate face to face - to - face associations. The relationship is found to be personal. These have strong feeling of belongingness.
- (ii) Secondary Group - Among the members of secondary group there have been formality of contact and impersonal relationship.

(B) Chitamber (1973) stated that the informal groups are highly useful in communication of the innovations. In order to build report, communication of information and to bring about the desirable change in the people it is highly important to locate these groups and make use of them in your plan of communication strategy.

- (i) Formal Group -These groups have definite roles, rules of operation, a definite system of work etc. The relationship among the member is also formal. There are definite rules of operation in

formal groups. It gives them the stability where as there has been no stability in informal group and these can at any time cease to exist.

- (ii) Informal Groups - In informal groups there has been no organization, rigidity or formality. The members have strong primary group feeling. These are based on friendship or common interest, for example, friendship group, group of women at the well. Working groups and recreating groups etc.

(C) Supe (1983) stated about the temporary and permanent groups. These groups are basically working on issue and or some time interests.

- (i) Temporary group - The groups assemble for a short period are called temporary group. The examples of such group are crowd, mob, herd etc.
- (ii) Permanent group - The groups living in a geographical area for a longer period are permanent groups. The examples are community, state, region, tribe etc.

(D) Supe (1983) also stated about the reference group. These groups are not of a particular type as referred above, but these may be viewed as those to which an individual refers for different and varied situations means, the decisions taken in consultation with a reference group naturally influence the behaviour of the member. Some time a person may not be so-called members of any reference group but he may consult a group of experienced and respected persons in society and take decisions accordingly to their advice.

(E) Chitamber (1973) shown the importance of cultural interest group. These groups are created for the development of special interest. They are formed on account of factors such as economic interest technical interest, religion interest, intellectual interest, aesthetic interest, political interest, educational or recreational interest.

SOCIAL STRATIFICATION

In their interrelationships, people tend to classify each other within higher or lower positions. Society is thus segmented - consisting of various strata in accordance with the system of hierarchy that prevails. The powerful and privileged occupy the topmost stratum and usually receive preferential treatment. Whatever the criteria for allotment of position at various levels of the social structure, and however idealistic the sentiments of a "need for classlessness and equality", the fact of stratification in rural society is a reality that must be faced objectively as a universal tendency in societies all over the world. Students of Rural Sociology should not question the justification or rightness or wrongness, for such sentiments is irrelevant to the study of rural society. Recognize their existence, understand and appreciate their relevance and influence on behaviour. Attempt to recognize and understand the forces that are generated from within and outside of the system. Consider your own reactions if you belonged to a lower or higher class in society, or if you lived in a rural village. You will begin to understand at least some of the forces at play and their impact and influence on the stratification system of rural society in the area.

The various forms of the segmentation of the social structure, based on ease of vertical mobility from one strata of society to the other, have been represented on a continuum. At one end exists a rigidity of divisions between strata which prevents mobility and at the other, complete freedom of movement. A position on the continuum, however, is subject to change in time, in response to the various societal forces both within and external to the stratification system that exists.

Definition

Social stratification is "the division of a population into two or more layers, each of which is relatively homogeneous and between which there are differences in privileges, restrictions, rewards and obligations".

Social stratification has also been defined as "a pattern of superimposed categories of differential privilege".

Meaning

Social stratification is the arrangement of individuals or groups of people into hierarchically arranged strata in a community. Even in what appears to be a homogeneous community, there may be internal inequalities, divisions or distinctions. These distinctions become patterned and stabilized over time, with unequal distribution of privileges, power and status positions. The determinants of status are-

Wealth - its quantity and quality, for example, income, living standard etc.

Ancestry - nationality, ethnic background, length of residence in the area, family reputation etc.

Functional utility of the individual - education, occupation, skill etc.

Religion - the kind and degree of religion professed.

Biological characteristics - age, sex etc.

Three features from up going discussion emphasized for greater comprehension:

- (a) Social stratification is a socially accepted cultural pattern that assigns members of society a general position in the structure of society;
- (b) Social stratification is superimposed by members of society by tradition and, without either, the will or conscious knowledge of the majority; and
- (c) Social stratification involves a system of differential privilege - unequal distribution of privileges, goods, power services, etc. among members belonging to different social strata.

Forms of Stratification:

From the foregoing it is evident that basic similarities and differences in various systems of stratification exist in societies all over the world. In summary, the underlying facts of basic similarities are that, in any society, the stratification system depends on such criteria of evaluation as are inherent to its culture and considered significant by most members of the society. The major values and goals of society and these criteria are closely related and high or low status is ascribed to individuals in accordance with the extent of legitimate control that society recognizes them to exert over attainment of the goals defined by existing values. It follows that societies sharing similar values and goals will tend to utilize similar criteria in evaluation and consequent stratification.

Cultural differences produce differences in the stratification systems of certain societies. The rural farm communities and urban communities use different stratification systems and criteria to evaluate individuals and ascribe status. Systems of stratification exhibit wide variance in different societies of the world. This variation may be in the criteria utilized for placing individuals and groups in various social strata of the system, or in the number of strata in the system, with some having two broad strata such as feudal lords and serfs, or nobility and commoners, and others having more. They may further vary in

rigidity or flexibility and the sharpness with which each stratum are demarcated. In some systems different strata are easily identifiable, which in others the boundaries are hard to locate.

Considering the various societies that have existed and do exist in the world, certain recurrent forms of social stratification generally can be identified. The forms are described briefly as below:

(A) Caste Systems.

The term "caste" was derived from the Portuguese word Caste [meaning lineage or race], although in India, the term Varna [meaning colour] is used to apply to caste.

Definition

A caste is a social category whose members are assigned a permanent status within a given social hierarchy and whose contacts are restricted accordingly.

A caste is a social stratum whose members are assigned a permanent status within a given social system and their contacts are restricted accordingly.

Meaning

It is the most rigid and clearly graded type of social stratification and has been often referred to as the extreme form of closed class system. An individual is born into the caste of his parent and can rise no further. With few exceptions we cannot fall to a lower caste, but if one does violate taboos and other mores of his caste he may be ostracized and expelled from his caste group. Personal qualities or ability have no part whatever in determining the caste of an individual, with lineage being the only criterion.

The characteristic features of a rigid caste system

1. Membership is hereditary and unchangeable.
2. Marriage must be made within caste line.
3. Caste names are often be a occupation.
4. Each caste has particular customs, control over individual.
5. Contact with other caste/sub caste in aspect of life is strictly regulated and limited.

The Hindu caste system of India is a striking illustration of stratification in society on the basis of caste. Within the four major castes of Brahmin (Priest, Education), Kshattriya (Soldiers), Vaishya (Traders) and Sudra (Servants) and the additional caste of Harijan formed by Mahatama Gandhi to include all "outcastes", is a complex stratified social structure consisting of thousands of sub-castes.

(B) Class system

Sharply contrasted with the caste system, the open class system can be placed at the opposite end of a continuum.

Definition

An abstract category of persons arranged in levels according to the social status they possess. There are no firm lines dividing one category from another".

A social class consists of a number of individuals who share similar status often ascribed at birth but capable of being altered.

Meaning

Class, therefore, does not consist of organized, closed groups defined by law or religion as does caste, nor are the various strata in the system as rigid and easily identifiable. Movement of groups and individuals to other strata is possible. Social class, not a lineal or familial inheritance, hence can be acquired and changed according to one's achievement and efforts, although the extent of such mobility varies from one society to another. Further, the socially defined criteria that ascribe an individual a position in the class system of a society are not irrevocable. Efforts to bring about change in the value system of society emphasizing certain factors and de-emphasizing others may often prove successful and may facilitate change of status in the class system. Such change is much easier in the class system than in the caste system.

Value definitions that are used to justify class differences are much less rigid than those used for the same purpose in the caste system. These differences are further more attributable to human than to supernatural factors in the former than in the latter system.

Type of class

1. Defined class..... Tribal, Non tribal
2. Sub cultural class..... Swaminarayan, Gayatri
3. Economic class..... Business, Service
4. Political class..... Congress (I), BJP
5. Sub identified class... Lions club, Rotary club
6. Participatory class.... Religious people of different religions

What extension worker has to understand.....

Caste system and class system represent basic forms of social stratification. An extension agent should identify the following features of a local stratification system -

- (i) the number of strata and the order in which they are arranged,
- (ii) the basis in which people are placed into different strata,
- (iii) interaction among the strata,
- (iv) influence of each stratum on village life,
- (v) how the different strata perceive change, and
- (vi) how different strata would be affected by a particular programme.

Cultural

Culture is the continually changing patterns of learned behaviour and products of learned behaviour which are shared by and transmitted among the members of the society.

Customs

The uniformly accepted ways of acting about some social aspect of life.

Traditions

The uniformly accepted ways of thinking. Eg. Respect some one by 'Namaskar'

Beliefs

Idea about the nature of reality that are thought to be true by those who hold them.

Norms

It is rules that define appropriate and inappropriate ways of thinking, feeling and behaving.
Basically there are three types of norms.

Mores

It is the patterns of behaviour considered essential by society. Eg. Standards of right and wrong things.

Folkways

It is the socially acceptable ways of behaviour, the customary norms of society that do not imply moral sanction. Eg. Bhangda, Garba

Rituals

A regular rhythmic procedure controlling a succession of acts directed to the purposeful and repeated in the appropriate occasion. Eg. worship, festival dance.

Taboos

It is type of mores for which the society does not give consent. Eg. Marriage with the family among Hindus is taboo.

CULTURAL CONCEPT

Culture is a very broad term that includes in itself all our walks of life, our modes of behaviour, our philosophies and ethics, our morals and manners, customs and traditions and different types of activities. Man cannot survive as man without culture.

Culture Definition

According to **Tylor** (1924) culture is that complex whole which includes knowledge, belief, art, morals, law, custom, and other capabilities and habits acquired by man as a member of society.

Graham Wallas : Culture is an accumulation of thoughts, values and objects, it the social social heritage acquired by us from preceding generation through learning

Material culture and Non-material Culture

Material culture consists of manmade objects such as house, tools, implements, food, clothing, technology and other material items. It is referred to as civilization.

Non-material culture consists of the words the people use, the language they speak, the beliefs, values they cherish, habits, rituals, ceremonies people follow or observe.

Characteristics of Culture

1. **Culture is learned:** Culture is learned through the process of socialization.
2. **Culture is transmitted:** Culture is transmitted from generation to generation.
3. **Culture is diverse:** It varies from society to society or country to country.

4. Culture is universal as well as unique: It is found in all societies with its own specific cultural pattern.
5. **Culture is shared:** customs, traditions, values, morals etc. are all shared by people in the society.
6. Culture is static as well as dynamic: Culture has permanence but it changes over time. We find a gradual modification or growth in the present Indian culture when we compare it with the culture of the vedic times.
7. Culture gives satisfaction: It is defined as the process through which human beings satisfy their wants.

Cultural Change and Cultural Lag

According to Kingsley Davis, the cultural change includes all changes occurring in any branch of culture including science and technology, art, philosophy etc. as well as changes in the forms and rules of social organisation.

According to **Dressler and Cams**, "cultural change is the modification or discontinuance of existing 'tried' and 'tested' procedures transmitted to us from the culture of the past as well as introduction of new procedures".

Cultural change is basic to extension, as through extension efforts we seek to introduce changes in the behaviour of the people.

Example: Adoption of Mould board plough replacing country plough, culture change takes place through (a) discovery and invention and by (b) diffusion and borrowing.

Cultural lags occur when some parts of the people's culture do not change at the same rate as do other parts.

Example: When people have increased production through adoption of new technology, but have failed to create value addition of the produce for more profit.

Intangible Cultural Heritage

According to United Nations Education, Scientific and Cultural Organisation UNESCO intangible Cultural heritage includes oral traditions, performing arts, social practices, rituals and festivals, knowledge and practices concerning nature. UNESCO's convention for safeguarding of Intangible cultural heritage was adopted and ratified by 157 countries.

On December 4, 2013, the intergovernmental committee under UNESCO held meeting at Baku enlisted "manipuri's Sankirtan" and Bangladesh's "traditional art of Jamdani weaving" as declared intangible cultural heritage of humanity.

Sankirtana of Manipur which narrates the lives and deeds of Lord Krishna is included in the National Inventory by India's Sangeet Natak Academy. The Akademi's archives hold approximately 40 hours of video Sankirtana performances including 25 solo performance and 18 group performance, audio etc. Sankirtan is practiced primarily by the Vaishnava community of Manipur. The theology and lore of Krishna is central to the performances.

Importance of Culture

Man cannot survive as man without culture, it is essential for man's social life. Culture has been fulfilling a number of functions.

These are presented following Shankar Rao (2012).

1. Culture provides knowledge which is essential for the physical, social and intellectual existence of man. Culture preserves knowledge and helps in transmission from generation to generation.
2. Culture defines attitude values and goals. Various issues such as our religion, marriage, family planning etc. are conditioned by culture. Our values concerning private properties fundamental rights, etc are influenced by our culture.
3. Culture directs and confines the behaviour of an individual. It rewards his noble works and punishes the ignorable ones.
4. Culture exercises a great influence on the development of personality. No child can develop human qualities in the absence of Cultural environment.
- 5 Culture defines social situation and living condition. It determines our food habit, dress code, behaviour pattern and other aspects in daily life.
6. Culture also plays an important role in agriculture. farming activities are also controlled by the culture in rural area.

Social control

Social control refers to the control of society over the individual. Social control implies a system of device through which society controls the activities of individuals members. According to Ogburn and Nimkoff, social control refers to the patterns of pressure which a society exerts to maintain order and established rules.

Formal and Informal Control

The State enacts law, legislation, military force, police force, administrative devices for the purpose of social control. Different political, religious and other associations or institutions, institute control over the behaviour of the members. These are called formal control. It is deliberately created. Punishment is given for violators of formal control.

Informal control includes public opinion, sense of justice, customs, folkways, mores, religion, morality and such other agents. These are deep rooted people's practice. No specific punishment would be given to the violators of informal control. Informal control is more effective in primary social groups such as family, neighbourhood, tribe, rural community.

Agencies of Social Control

Customs

Customs represent a kind of informal social control. According to **Maclyer** and **Page**, 'the socially accredited ways of acting are the customs of society'. It regulates mans entire action - his dressing, eating, speaking, working, celebrating festivals etc. all are controlled by customs. Man learns customs from his very childhood and continuously obeys them. Customs are rarely opposed by people. These are more influential and dominant in the primitive society than in the modern society.

Customs and habits are closely related. Custom is a social phenomenon and socially recognized. Habit is an individual phenomenon and learnt individually.

Folkways `

Folk means people and 'ways' refers to their behavioural habits. The word means literally "the ways of the folk".

Folkways refers to the repetitive petty acts of the people. These are the approved forms of behaviour in specific situation. Folkways usually arise without prior intension in the process of living.

Example: If a black cat crosses the road when a man goes out, he will not move further presuming that he may meet with an accident. Greeting others with folded hands, or saying 'hello', when answering the phone are examples of folkways.

Folkways are not as compulsive and obligatory as laws or morals. Violations of folkways are not punished by formal means. But violators are put to gossip, slander and ridicule.

Mores

Mores (singular more) are the pattern of behaviour considered essential by society. Mores are positive actions that ought to be done.

Example: Saluting the flag, standing during the national anthem. Mores deals with the moral aspect. They are morally right and their violation morally wrong. A prohibition against pork is an important mores in Muslim society.

The difference between folkways and mores is largely a matter of degree to which they are enforced. Folkways may be violated without punishment but if the mores are violated, the individual or group may be divided or disturbed and even punished. Mores, of course, are much more compulsive than folkways. They are not norms but rather guide for behaviour.

Social Importance or functions of Customs Folkways and Mores

Customs, folkways and mores represent different kinds of social norms. Customs give guidance for people in every activity. It can enlighten man in his social life. Customs are basic to collective life. They are more influential and dominant in primitive society than in the modern society. Customs are rarely opposed.

The folkways are the foundation of every culture. It reduces our mental strain and nervous tension. Human infants learn the folkway through the elders. Folkways contribute to the order and stability of social relations.

Mores always exert direct pressure on our behaviour. They mould our character and restrain our tendencies. Mores bring the people together to form into a cohesive group. Mores are the guardians of social solidarity.

Taboos

Negative mores prescribe behaviour pattern. They are called 'taboos'. Taboos are negative actions that ought not and should not be done. They put severe restrictions on one's behaviour pattern.

Example: Not smoking in row of elders, don't tell a lie, don't disrespect the God.

Rituals

Rituals are the religious means by which the purity of the individual and the social life becomes guaranteed. A ritual is prescribed whenever the individual or the social group initiates an activity and it is repeated.

Example: Before an individual Brahmin starts consuming food in the dish, he is required to draw a circle round the dish and apportion (share) some grains of cooked rice to the God. Besides, there are rituals, relating to birth, marriage, or death and even rituals before agricultural operations.

Rituals are the pattern of behaviour or ceremony which has become the customary way of dealing with certain situations, or is the pattern that has been established by law. Rituals are periodically or repeatedly performed.

Example: Performing the marriage ceremony, death and funeral ceremony.

Sanctions

Sanctions refer to the reward or punishments used to establish social control. The basic purpose of sanction is to establish socially acceptable behaviour of group, community or larger society. Sanctions are applied in various ways. They may be positive or negative. Positive sanction includes verbal method such as praise, flattery, giving rewards, medals, titles etc. Negative sanction includes - gossip, slander, threats, commands, censorship, satire etc.

Tradition

Tradition is a belief, principle or way of acting which people in a particular society or groups have continued to follow for a long time.

Example: Reading "The Ramayana" or "The Mahabharat" in the evening by the member of a family generation after generation is a tradition of the family.

Law

Law is the most powerful formal means of social control in the modern society. Laws are a form of social rule emanating from political agencies. These are enacted by a proper law-making authority. Violation of law is followed by penalties and punishments determined by the authority of the State. Laws are enforced with the help of the police, the court and sometimes the armed force.

Morality

It is concerned with the conceptions of goodness and evil. Morality refers to that body of rules and principles concerned with good and evil as manifested to us by conscience. These rules are admitted by the community. Honesty, truthfulness, kindness, sacrifice, service mindedness etc. represent some of the moral concepts. Morality acts as a guide of human behaviour. It is an effective means of informal social control.

Norms

Norms are the established behaviour patterns for the members of a social system, It is expected that the members of a society shall follow the norms. A person who deviates from the norm is generally regarded as a deviant by other members of the system. An individual who first adopts a new technology may be regarded as a deviant by others.

Values : Definition

1. **Young 1959**, "Values are abstract and often unconscious assumptions of what is right and important".
2. **Betrand 1958**, "Values are ideas as to whether objects or behaviour are good, bad, desirable or the like".

Characteristics of Values

1. **Values are socially created:** Values are socially created through the interrelationships of its members. These are not inherited or biologically determined.

Example: The Values such as respect to parents or teachers, fundamental rights, cooperation, privacy etc. are developed through the process of socialization.

2. **Values are learned:** These are acquired through the process of learning at house, in the schools and through the process of socialization.

3. **Value systems vary from culture to culture:** Since culture varies in their practices, customs, forms of living and functioning, value system is not identical in all societies or communities.

Example: In West Bengal evening meal (Dinner) is generally taken after 9 P.M. singly or jointly but in Mizoram dinner is served at around 6 P.M. jointly by all the members of the family.

4. **Values are abstract in nature:** Values are abstract attitude on which there is a social consensus about its goodness or desirability.

Example: Values such as democracy, freedom, respect for fundamental rights are abstract values.

5. **Values are socially shared:** Individuals in the society may have individual values but the value systems of societies are shared with others.

6. **Values are stable, deep rooted and subject to change:** Values are deeply attached with the mores and culture of the society. But with the passage of time values are changing.

Example: The caste system in India imposed restrictions to only endogamy marriage (An individual has to marry within his or her group). Brahmin has to marry a Brahmin. With the change of value system and the introduction of Special Marriage Act 1956 exogamy marriage is possible between a Brahmin and other caste member.

7. **Values may conflict with one another:** Values may conflict with one another. We find multiple, overlapping and sometimes even opposing value system in the same society.

Example: Mahatma Gandhi cherished the value of "non-violence movement" against the British where as, Netaji and other patriots opposed the value of Mahatma Gandhi for the same purpose. Society accepted both the value system and considered both are desirable.

8. Value system consists of ranked alternative: Values frequently represent alternatives and behaviour is determined by the priority level of the value.

Example: In rural Bengalee family the eldest son generally does not agree to marry until his adult sister's marriage is not performed. Priority in marriage is given to the daughter in a family except in exceptional cases.

Types of Values

According to Chitambar (1997) three types of values have been identified.

1. Ultimate Values or Dominant Values

The values which assist to control the behaviour of individuals and group called ultimate value. Ultimate values express the general views of the society and it is abstract in nature and often not attainable.

Examples: Values such as democracy, freedom, the right to dissent etc.

2. Intermediate Values

It is derived from ultimate values. After rephrasing the ultimate value, intermediate values are obtained and implemented through socially prescribed rules or norms. Important social institutions viz. Government, religion, education generally serve this intermediate value.

Example: The government provides free public education, adult franchise, religion provide freedom to worship God.

3. Specific values

Specific values are often stated in specific terms. The subdivision of intermediate values are called specific values.

Example: Specific value in regard to public education may be expressed in terms of preference of type of school, classroom and other facilities.

The following examples may clarify the nature of three types of values.

1. **Ultimate value:** Universal Primary education by the centre or State.
2. **Intermediate value:** Provision of free public education.
3. **Specific value:** (i) construction of adequate schools, (ii) provision of qualified teachers, (iii) content of courses of instruction, etc. and (iv) adequate measures for preventing drop-outs, nutrition health etc.

Functions of Value

1. **Values act as a means of social control:** Values encourage people to do the right things, to act which is desirable. It is true that man can not be absolutely free in society. Values guide them and forbid to do the unjustified work.
2. **To provide for stabilities in the social interaction:** Sociologists argued that shared values form the basis for social unity and social solidarity. Since a group shares the values of other groups, the members of the group see other groups as "people like themselves".
3. **Values help bring about some kind of adjustment:** Values help people to adjust with others to live peacefully with other communities.

Example: The Indian people cherish the value of "the principle of co-existence" with different communities, then each community does not disturb in the cultural activities of others.

There are some values which are considered as obstacles to social change. These are:

- (i) Fatalism: belief in fate, rather than in one's own ability to change things.
- (ii) Conservatism: emphasis on the past, preserving it and continuing it.
- (iii) Familism: Subordination of individual accomplishments and goals to those of the family.

Technological change requires behavioural change on the part of the people. Until the values and beliefs change, the behavioural change shall not occur. Mass media, demonstration, training, information technology may be used to help people change their values and beliefs from traditional to modern.

Values and Norms

Values are the attitude, ideas held by individuals, groups or society as a whole. For example, the Hindus go to the temple and worship, the Muslims recite a prayer in the Mosque or the Christians pray in the Church. In each case religious worship and respect to God in different forms constitute the value of that community. During puja and prayer silence, calm and quiet atmosphere is maintained by the devotees and other people gathered there. This appropriate and acceptable behaviour in particular situation is called **Norms**. Similarly a society cherishes the value of "privacy". So an individual who is not member of the family, when wants to enter the house of others, he has to seek permission. Here seeking permission is an acceptable behaviour pattern and it is called norms. Values and norms go together. Social values form an important part of culture of the society.

Beliefs

Beliefs which are closely related to values are the mental convictions one has about the truth or actuality of something (Sofranko, 1984). Beliefs refer to what people believe or accept to be true. There are beliefs of what is right or wrong, proper or improper, lucky or unlucky etc.

Values and beliefs tend to be culture specific and are important elements in the change process.

Examples of Belief System

Das and Tayeng (2010) conducted a study on Traditional Food of Adi people in Arunachal Pradesh and identified few belief systems.

Beliefs on Hunting and Food habit

1. The older generation of Adi people (a collective tribe living in Himalayan hills of Arunachal Pradesh) believe that if someone especially hunters consume snake or wild animal like tiger, it will affect their hunting skill.
2. Fermented food such as soybeans are avoided when the men folk go for hunting as it will bring ill luck to them.
3. Husband of pregnant women does not hunt wild animal like monkey as they believe that the new born baby's behaviour will be like that of monkey.
4. Pregnant women believe the following and avoid consuming food containing the meat of
 - (a) Monkey (child will behave restlessly like the monkey)
 - (b) Pig's tail (child will be hyperactive and busy like the constant movement of tail).
 - (c) Insect like Pumngr (larvae) (child will move his head constantly)
 - (d) Pareek (Jungle fowl) because child will be born with red spot patches on any part of the body
 - (e) Avoid drinking water in colocasia leaf as it is believed that child will be born with squinted eyes.
 - (f) Women avoid eating colocasia corns because they believe that during delivery the baby will be choked with the mucilage of the corn.

SOCIAL INSTITUTION

The social framework of rural society is not as easily and readily identified or observable as is the physical structure. In their interrelationship and interaction with one another, human beings create forms of association which are entities in themselves and constitute the major mechanisms through which society operates. These forms of association have specific functions. They have been classified into components of social structure on the basis of the type of bond that holds them together as a structural whole. The following are the major forms of human relationship structure that compose rural society: social institutions, organizations, ecological entities, groups and collectivities. Each form of human relationship structure is discussed in the following chapters.

While each major component has been presented separately, it is important to recognize that their significance and meaning does not lie singly in themselves but as a part of the total structure of rural society. Without one or more of these components the social structure would not exist anymore than would rural society as a whole without a physical and social structure. Consider these components then as interrelated essential parts that go to make up the whole.

When man relates himself with others he creates what have been described as forms or structures in order to enable him to meet his needs and function in other ways of life. These forms constitute the framework, channels or means through which he functions in society. Thus, man the creator of forms in society, the formulator of rules, regulations, procedures and norms of behaviour is governed and controlled by them in order to function effectively in fulfillment of needs. Social institutions have been created by man from social relationships in society to meet such basic needs as stability, law and order, and clearly

defined roles of authority and decision making. Five major institutions in rural society - political, educational, economic family and religious - have emerged because of such needs.

Definition

"An institution is an organized system of social relationships which embodies certain common values and procedures and meets certain basic needs of society".

"Social institutions are formal cultural structures devised to meet basic social needs".

Important Functions of Institution

- (i) Generally has more than one function.
- (ii) Defines procedures of action and reasons for action in addition to defining roles.
- (iii) Functions as social control of its members.
- (iv) Prepares their members for effective participation.
- (v) Consists a set of attitudes, roles, and expectations.
- (vi) Functions in achieving some of basic needs of man.

Major Institutions in Rural Society

Generally recognized are five basic institutions in both rural and urban society: the family, religion, the economic, government, and education.

A. The family:

The family is the most multifunctional of all institutions in society, and is a system of organized relationships involving workable and dependable ways of meeting basic social needs. More specifically the family commonly fulfils the following tasks in society:

1. Sex regulation,
2. Reproduction and perpetuation of the family and human race,
3. Socialization,
4. Provision of economic maintenance and livelihood in many cultures.
5. Provision of love, affection and security to the individual, and
6. Provision of class status to the individual of the family into which he has been born.

Within the basic institution of the family are secondary institutions such as engagement, marriage, courtship and relationships with the family into which marriage has taken place.

The specific ways in which these functions and tasks are carried out are defined by the culture of the society concerned, involving systems of social roles, norms of behaviour, and prescribed rules and regulations governing forms and procedures involved in these relationships.

For example, there are two major types of composition of the family: the conjugal family - consisting of husband, wife, and children - and the consanguine family - founded on blood relations of a large number of people and consisting of a large group of blood relatives with a fringe of spouses. The former type is common in western cultures and the latter in the east. Further, the number of persons united in marriage may vary according to the system prevalent in the culture: monogamous (one man to one wife), polyandrous (one woman to more than one man), or polygamous (one man to more than one woman). Similarly, systems of mate selection, pre-marital relationship, courtship, engagement, and marriage exhibit wide variation all over the world.

The network of relationships revolving around cooperative forms of relationships between the sexes for reproduction, care, nurture and socialization of children and other such functions of the family extends and operates within culturally defined patterns of behaviour, fulfilling carefully prescribed roles. As in the case of the other institutions, the families in India and in other parts of the world are in the midst of

change, and many functions of the family have been transferred to other institutions in society. The family has tremendous influence on the individual, his behaviour and his action for it moulds him from infancy and has significant influence on the development of his personality.

Types of Family:

- i) Conjugal - Nuclear or Primary - Consists of husband, wife and their children.
- ii) Consanguine - Extended or Joint Family - Some other relatives besides the above.

Both the above types may exhibit any of the following forms:

A. Form of the Family on the basis of dominance:

- (i) Patriarchal - Here the man is dominant (common in north India).
- (ii) Matriarchal - Here woman is dominant (a) mothers (b) father does not live with mother and visits his wife and children accordingly. Common in Assam, S. India.

B. Form of the Family on the basis of Lineage:

- (i) Patrilineal - Lineage or class on male line.
- (ii) Matrilineal - Lineage or class on female line.

C. Form of the Family on the basis of Circle:

- (i) Patrilocal - Wife joins the relatives of husband.
- (ii) Matrilocal - Husband joins the relatives of wife's.

D. Form of the Family on the basis of Form of marriage:

- (i) Polyandrous - More than one husband.
- (ii) Polygynous - More than one wife.

B. Religion:

From antiquity man has sought answers to questions concerning the mysteries of his own creation, his relationship to the Supernatural, a satisfying philosophy of life, and life after death. In his searching he has built up a category of individuals who would devote their specific attention to these matters as possible intermediaries and religious guides; he has developed rituals and ceremonies for appeasement and propitiation of the supernatural; these rituals, based on beliefs, convictions, and the ceremonies, and symbols accompanying prescribed roles and prescribed patterns of behaviour together constitute religion. Most religions of the world have the following elements:

1. A set of beliefs regarding the ultimate power in the universe,
2. A set of beliefs regarding the ideal and proper pattern of behaviour,
3. A set of ceremonial ways of expressing these beliefs". [Rose, 1964, p. 203]

Each of the elements will vary in form, in observance, in the response they evoke from individuals, and in influence according to the culture concerned - together, these elements prescribe specific lines of action, attitudes, and values desirable under varying conditions according to which man is expected to behave.

Religion also provides a foundation for mores of society. Hence religious sanctions are sought for certain desirable patterns of behaviour to persist in society in the form of mores. In doing so, violation of the patterns of behaviour then become violation against divine order. Thus, many taboos in various cultures have religious sanction, e.g., the taboo against eating of pork in Jewish and Muslim cultures has definite and precise religious sanction.

A further function of religion is to provide a means whereby man can face the crises and vicissitudes of life with strength and fortitude. The concept of faith in Jesus Christ as the Son of God and of prayer among Christians; of Karma among Hindus seeks to provide such fortitude and strength.

The religious beliefs, forms of worship, objects of worship, rituals, ceremonies of the people of the world are varied and most numerous, but most are basic in the profound influence that they exercise on the behaviour of individuals, groups and society as a whole in almost every aspect of life. Secondary institutions within the major institution of religion include rituals, forms of worship, and organized groups for propagating religions.

C. Government:

Also referred to as the political institution, government administers the regulatory functions of law and order and maintains security in society. It provides both the means for regulating the behaviour of individuals within society in accordance with required norms, and protection from external aggression. Within this major institution are secondary institutions such as military systems, police forces, legal systems, and diplomatic relations with other countries. In various cultures of the world government has tended to assume many functions of other institutions, e.g., the formal education of children, physical protection of home, fixation of prices, credit, and the regulation of marriage conditions. Another tendency or trend has been an increase in the number and scope of its functions.

Forms or constitutions of government, and the procedure and manner of regulation depend on the accepted patterns of behaviour within a society. Such patterns may start, for instance, from a government with supreme power vested in an individual or small group to a democratic system of government.

D. Economy or maintenance:

Such institutions provide basic physical subsistence for society and meet basic needs for food, shelter, clothing and other necessities. Included are the economic institutions of production - agriculture, industry, and the distribution, exchange, and consumption of commodities, goods and services necessary for human survival. Secondary institutions included within the major economic institutions are credit and banking systems, advertising, cooperatives, etc. Means of livelihood show wide variety both in themselves and in associated functions and relationships not only in various parts of the world but within societies.

E. Education:

Educational institutions are those which seek to socialize individuals in society or introduce them in formal ways into their social and cultural world. Every new generation must be prepared and trained to play a role in society. This process, referred to as the process of socialization, commences informally at home and then formally in an institution of education. In some societies, part of the function of the institution of education is performed by the institutions of the family and of religion. Educational institutions have emerged from this background - from the home and the temple, the mosque, the church or the ashram to the formal village school, college and university. In most societies, however, the function of providing education mainly has been assumed by the Government. Education as an institution in various parts of the world seeks to fulfil its functions of transmission of cultural heritage, social integration of society by moulding the individual to conform to norms, socialization and personal development in various forms and in various ways that are socially acceptable and culturally defined. This major institution is of tremendous influence on the behaviour of rural people, their inter-relationships and the moulding of behaviour and personality of individuals and groups.

SOCIAL ORGANIZATIONS

Definition

As those classes of human relationship structures wherein people purposefully associate in systematically arranged units to promote and achieve some common purposes or interests that are not specifically expressed in the institution. Each member has a formal status and role. **Andeson, W. A. (1964)**

It may be viewed as group of people organized to pursue a specific objective. It has been an organized group of people formed in pursuit of some common interest with its own self-contained administrative structure and functionaries.

The organizations should have:

- (i) Clearly defined limits
- (ii) Formal membership
- (iii) Self - contained
- (iv) Operative principles
- (v) Provision for control

SOCIAL CHANGE AND DEVELOPMENT

Social Change

Change is the law of nature. The nature is always changing. Same is the case in case of society. It is subject to constant change. Social change occurs in all societies and at all times. Social change takes place in human interactions and interrelations, alterations in the structure and function of the society.

Social Change : Definition

Change means variation or a difference in anything observed over some period of time.

According to **Shankar Rao** (2012) any alteration, difference or modification that takes place in a situation or in an object through time can be called change. The term, "Social change" is used to indicate the changes that take place in human interactions and interrelations. So, social change obviously means a change in the system of social relationships.

According to **Jones** "the term social change is used to describe variations in, or modifications of any aspects of social processes, social patterns, social interaction or social organization.

According to **Koenig**, "Social change refers to the modifications which occur in the life patterns of people.

Social Change and Cultural Change

The two terms, social change and cultural change are closely interrelated and it is very difficult to distinguish them. Social change refers to changes in social Structure and social relationships. Cultural change refers to changes in the culture of society. But according to **Kingsley Davis**, cultural changes include all changes that take place in any branch of culture including art, science, technology, philosophy etc. as well as changes in social organization. Cultural change is broader than social change. But most sociologists use the two terms interchangeably since distinction does not serve a very useful purpose.

Characteristics of Social Change

Important characteristics of social change are presented below:

1. Social change is universal: Change is the law of nature. Social change takes place in all societies all over the world. It is perhaps slow in primitive tribal societies and rapid in complex modern societies. The speed and extent of change may differ from society to society.

Example: The "Green Revolution" in Punjab, Haryana and Western part of Uttar Pradesh during 1966 brought a rapid social change in the region. On the other hand in North-East India people are traditionally cultivating "Jhum"(Shifting cultivation), but in spite of government effort, the rate of discontinuance of this primitive practice is very slow.

2. Social change is a continuous process: Social change is not static, it is a continuous process with the advent of science and technology. Earlier people used to walk on foot and by by-cycle. Subsequently day to day journey is performed by two wheelers and four wheelers.

3. Social change is environmental: Social change never takes place in vacuum. It takes place within a geographic or physical and cultural context.

4. All social change essentially involve human aspects: The sociological significance of the change involves human aspect. Social change means changes in the structure and function of the society which vary considerably with the passage of time.

5. Social change results from interaction of a number of factors: A single factor may cause a particular change. But social change is associated with other factors. The physical, biological, technological, cultural and other factors may jointly bring about social Change.

Example: Green Revolution in the year 1966 in Punjab, Haryana and western Uttar Pradesh occurred as a result of high yielding varieties of wheat, (biological factor), big land holding (cultural factor) farm mechanization, irrigation, fertilizers (technological factors).

6. Social change involves tempo (rate) and direction of change: Social change may tend towards any direction. The tempo or the rate of change is also not governed by any universal law. Social change is generally invited for the "progress" of society. But it may tend towards any direction.

Example: The resource poor farmers could not harvest the benefit of Green Revolution programmes. This resulted in increase in interpersonal and inter regional disparities in the rural society.

7. Social Change may be planned or unplanned: Social change may occur both in planned or unplanned way. Introduction of Panchayati Raj Institutions in 1959 by the Govt. of India generated new leadership which replaced the bureaucratic mind-set. Community Development is a planned social change. Unplanned change refers to change resulting from natural calamities such as floods, earthquakes or droughts which may bring drastic changes in society.

Theories of Social Change

Social anthropologists have proposed many theories of social change. Important theories are presented below following Kansal (2004) and Chitambar (1997).

1. Theories of Causation

These theories have been grouped on the basis of five factors.

These are:

- (a) Geographic determinism
- (b) Biologic determinism
- (c) Economic determinism
- (d) Religious determinism
- (e) Cultural determinism

a) Geographic determinism

Theories that explain social change in terms of some features of the natural environment is known as 'geographic determinism'.

Climate and other factors of the earth's surface influence one's livelihood. Heat, cold, drought, earthquake, atmospheric conditions are factors which interplay individual's condition. Soil fertility, soil topography, ground water table, meteorological phenomenon, biodiversity, global warming etc. are the geographical factors which caused development of agriculture and industry. Geographical factors influence the social change in variable way.

Example: By using scientific knowledge 'desert-bloom' has been made, waterlogged and marshy land have been converted into a fertile land.

Arnold Toynbee and Ellsworth Huntington are among the leading exponents of this theory.

b) Biologic determinism

Theories that explain social change on the basis of traits or characteristics of the human organism is known as biologic determinism.

Plant and animal are the part of non-human environment and utilized them for various purposes. For instance, plant and animal life have been utilized to meet up the basic needs of food, clothing and shelter. The non-human environment is constantly changing due to struggle for existence and survival of the fittest. One species gains at the expense of another with perhaps some species loosing from the environment and becoming extinct. Using scientific knowledge and skill, a wild grass can be converted to a high yielding grain and a wild bird into an 'egg-producing machine'.

Human beings are also themselves a part of biological environment. Both changes in genetic character and changes in the density, composition and number of population can be an important factor for social change.

Example: It is evident that in some parts of the world, rapid population change interacting with other factors can stimulate the rapid social change. ruP-1- anon movement from rural to urban areas, rich in population in cities and t11 demographic factors can cause the change in the society.

Adolf Hitler explained this determinant in his book "Mein Kampf".

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(c) Economic determinism

The determinants which explain the economic factors as the bases of social change are referred to as economic determinism. Sumner and Keller insisted that social change is automatically determined by and factors. **Karl Marx** also held the view that material conditions of life are determining factors of social change. His theory is known as the theory of economic determinism or the materialist interpretation of history". Marx held that human society passes through various stages. Changes from one stage to another were due to changes in the economic factors, namely, the methods of production and distribution. A change in the material conditions of life brings changes in all social institutions, such as family, state, religion. It alters the primary socio-economic relationship. **Engels**, a close associate of Marx, held the same view that the mode of production and exchange had an important role in social change.

(d) Religious determinism

A number of social thinkers opposed to the theory of economic determinism, and they considered non-material elements of culture were the basic sources of social change. They regarded ideas as the prime

movers in social life. **G. L. Bon, G. Sorel, Frazer and Max Weber** held that religion is the chief initiator of social change. Thus Hinduism, Buddhism, Judaism (the religion of the Jews) had a determining influence on social change.

(e) Cultural determinism

The theory of religious determinism has been criticized by **Sorokin** in his "Contemporary Sociological Theories". According to Sorokin, change is caused by the interaction of various parts of a culture, none of which may be considered primary. Some material cultures which include technology, invention, discovery, diffusion etc. brought about social changes all over the world.

2. Linear Theories

August Comte, Spencer, Hobhouse and Marx were formulators of this Linear Theories.

Comtes Theory: Comte's theory explained that social change was the outcome of man's intellectual development. This was formulated in the "Law of three stages".

- (i) A progress from theological modes of thought (*i.e.* the study of God and religious belief)
- ii) Metaphysical thought (Philosophy concerning truth and knowledge)
- (iii) Positive mode of thought represented by modern science.

Spencer's Theory: It was more comprehensive and based on more adequate empirical data than that of Comte. His analysis of social change depended upon the evolution in each particular society (social evolution). The theory of social evolution would explain the origin and development of man.

Hobhouse's Theory: His theory of social change was worked out by using historical and anthropological data more scholarly. Hobhouse adopted Comte's idea of "human mind" which was crucial factor in social development as well as he adopted Spencer's notion of "social evolution".

Marx's Theory: In Marx's theory of social change two elements - the development of technology (productive forces) and the relation between social classes were considered very important.

The linear theories brought about a number of significant cumulative changes in human social history. The growth of knowledge, the increasing complexities of societies and in modern times the growing movement towards social and political equality - all recognized the particular significant changes which occurred in Europe from the seventeenth century. These subsequently influenced the social life of mankind through out the world, and in the development of modern science and industry.

3. Cyclic Theories

Spengler, Toynbee and Sorokin have propounded cyclic theories of social change. Looking to the cyclic changes of days and night, they said that human society goes through certain cycles.

Spengler's Cyclic Theories: Spengler believed that society has a predetermined life cycle and has birth, growth, maturity and decline. Modern society is in the last stage. It is in its old age. Since history repeats itself, society after passing through all the stages, returns to the original stage and the cycle again begins. This concept is found in Hindu mythology according to which "Satyug" will again start after "Kaliyug" is over.

Spengler also analysed the history of various civilizations including Egyptian, Greek and Roman and concluded that all civilizations passed through a similar cycle of birth, maturity and death. The western civilization is now on its decline which is unavoidable.

Arnold toynbees cyclic theory: He also maintained that civilization passes three stage- youth, maturity and decline. The first is marked "response to challenge" by environment and internal as well as external enemies, the second is a time of troubles" and the third is characterized by gradual degeneration. He was also of the view that civilization can still be saved by spiritually regenerated group of leaders.

Sorokin Cyclic Theory: Sorokin concluded that civilization falls into three cultural extremes.

- (i) The sensate culture stresses those things which can be perceived directly by the senses.
- (ii) Ideational culture emphasizes those things which can be perceived by the mind, and
- (iii) In idealistic type of culture reality and value are regarded sensory as well as supersensory.
This is a synthesis of ideational and sensate culture.

4. Conflict Theory

The basic elements of conflict theory were set out by two of the greatest sociologists, Karl Marx and Max Weber.

Karl Marx's Conflict Theory: Conflict theory in sociology is the creation of Karl Marx, indeed Marxism and conflict theory were synonymous. Marx believed, first of all, that people have an essential nature of predefined interests. He asserted that individuals and groups opposing interests are bound to be at conflict. Since the two major social classes, that is, the rich and poor or capitalists and labourers have mutually holistic interests they are at conflict.

Max Weber's Conflict Theory: Like Marx, Weber opined that people's activities are directed for self-interest. But in addition to such universal interests as acquisition of wealth, the sociologists must also recognize the importance of goals and values Specific to a society. Weber analyzed the ways people skillfully pursue for such advantage and interest.

5. Functionalist Theory

Functionalist theory (often called structural functionalism) assumes that as Societies develop, they become more complex and interdependent. This theory emphasizes social order rather than social change. Key concepts of this theory are differentiation and integration. Differentiation occurs as society becomes complex but the new institutions must be integrated with each other into the whole.

Factors in Social Change

Various forces and factors internal as well as external are playing an important role in social change.

According to **Lapierre** these factors must be understood as 'intervening variables, that condition social change. Important factors of social change are explained below following Kansal (2004) and Chitambar (1997).

1. Geographical or Physical Factors of Social Change:

The physical factors consist of the surface of the earth, climate, rainfall, mountains, rivers, vegetations, minerals etc. One of the earliest writer, **Hippocrates** wrote in his book, "On Airs, Waters and Places" that climate exercises a considerable influence upon the human temperament. He believed that, Europeans, since they live in climate of changing seasons, are vigorous, brave and fierce, whereas, Asiatics, who enjoy a more equitable climate, are calm, mild and gentle.

Land and water masses contributed a lot for socio-economic benefits of a country.

Example: The city of New York enjoys one of the finest natural harbours in the world for international trade and commerce. The Manhattan Island due to its solid rock foundation and entirely surrounded by water, has sky scrapers buildings. Rich in natural resources like petroleum, the affluent Saudi Arabia and other countries allured about 1.5 million labourers from India, Bangladesh, Pakistan, and African countries in different types of works.

The geographical factors are also important in the planning and prosecution of a war. This is called geopolitics. The German geographer named **Barl Haushofer**, an intimate of **Hitler** gave the German dictator geographic justification for making war upon the Russians.

Some social geographers and social ecologists have attributed much importance to geographic factors as well as cultural factors in bringing about social change. With the application of science and technology many desert and waterlogged areas have been converted into the evergreen crop field. The natural landscape has and converted to cultural landscape by construction of dam, highways, resorts tourist spot with the interaction of geographic and cultural factors.

Example: the beautiful sea beach at Puri in Odisha and adjacent Chilika lake (Geographical factor) as well as presence of lord Jagannath temple at Puri and sun temple at Konark (cultural factors) have jointly attracted thousands of tourist (particularly Bengalee tourist) every day and contributed in socio-economic and cultural change occurred by both geographical and cultural factors.

2. Biological factors

Biological factors also determine the form and structure of the societies. Man is influenced by non-human biological factors which constituted by plants and animals. The biological factors influence the numbers, composition, birth and death rate, fertility rate and heredity quality of successive generation. The biological factors like population size and composition, proportion of younger people to the aged people, ratio between male and female produce social change. In some countries, the falling rate of population (viz. USA, USSR, Sweden) as well as high rate of population growth (India, Bangladesh) have posed a serious problem like unemployment, poverty, housing problem etc. this has a direct impact on social change.

Natural Selection and Social Selection

According to Darwin's theory, there is a struggle for existence in the nature. In this struggle only those survive who are the fittest. On the other hand social selection is the result of the forces of culture and civilization controlled by men. Natural selection acts only through the death rate while social selection emphasizes on birth rate. Natural selection is the way of competition and conflict while social selection is the way of co-operation.

By social selection, society directly controls the death rate by means of sanitation and hygiene, providing medical facilities, organizing pulse polio and other vaccination programmes, women and child care programmes and in some degree by penalties against homicide infanticide, and abortion. Similarly society attempts to control the birth rate by prohibiting child marriage, adopting birth control measures etc. Both natural and social selection act as a biological factors of social change.

3. Cultural Factors of Social Change

Culture is a very broad term and it includes our values, beliefs, ideas, morals, tions etc. Cultural change takes place through (a) discovery and Invention and by (b) diffusion and borrowing. The role of technology as a source of social change varies from region to region and country to country.

Example: Application of material culture like information communication technology (ICT) in some south Indian states has brought a significant change in socioeconomic development in comparison to other parts of India.

W.F. Ogburn in his book, “Social Change” mentioned that material culture (house, clothing, tools, technology etc.) stimulate changes in non material culture (viz. family, education, religion, belief, customs, political organization etc.).

4. Technological Factors of Social Change

According to the Shankar Rao (2012) when the scientific knowledge is applied to the problems of life, it becomes technology. The modern age is often called Technological age. The development in the field of technology started in the great event of Industrial Revolution of the 18th Century in England. Technology and its change have affected the human life and social order in the following way.

(i) **Effect of technology on industrialization**

Industrialization has produced better quality goods for the benefit of modern society. At the same time, the traditional skills have declined and a good number of artisans have lost their work.

Example: Introduction of low price Chinese bicycles, electronic goods toys and batteries posed a threat to Indian small industries.

(ii) **Effect of industries on urbanization**

Urbanization is a process of becoming urban, moving to cities and changing of occupation from agriculture to non-agriculture and corresponding change of behavior patterns. As a result of industrialization people have started moving toward the industrial areas in search of employment. A number of such industrial cities are Kolkata, Durgapur, Tatnagar, Bangalore, Kanpur etc.

(iii) **Effect of technology on modernization**

Modernization is a process by which the modern ways of life and values are adopted by the social system. With the technological revolution in 21st century, the food habit, dress habit, tastes, choices, preferences, recreational activities, mobility, ideas and values have undergone a sea change in rural India.

Example: Use of mobile phone and two wheelers, consumption of fast food, soft drink, Chinese food, and introduction of cable channel in Television in rural areas have changed the rural social structure.

5. Legislation and Social Change

Legislation, particularly social legislation as well as a few important Acts passed by the Indian Parliament has brought social change.

6. Education and Social Change

Education is the process which brings about changes in the behaviour of society. Education can also be understood as a factor of social change. Modern education has changed the attitude and outlook. It has affected our customs and traditions, manners and morals, religious belief. It has removed to a great extent the superstitious beliefs and prejudice. Education increases political awareness among the poor people.

The Government of India introduced several educational programmes like the Operation Blackboard Scheme in 1987, National Literacy Mission in 1988, District Primary Education Programme in 1994, and above all the most important one is Mid-Day Meal programme in 1995. All these programmes

played a pioneering in the expansion of primary and upper primary education among the weaker sections of the community. The Mid-Day Meal programme was launched to encourage the poor children belonging to disadvantaged sections, to attend schools more regularly and providing nutritional support to children of primary schools.

Process of Social Change

Social change occurs not only by some factors discussed earlier but also passing through some processes. With the advent of science and technology and influence of western culture our society has undergone a sea change.

The processes are discussed below:

1. Sanskritisation

Prof. M. N. Srinivas has defined Sanskritisation in his book “ Social change in Modern India” 1971

“Sanskritisation is the process by which a low Hindu caste or a tribe or other group changes its customs its customs, rituals, ideology and way of life in the direction of a high and frequently, twice-born caste”

In this definition, the following points have been stressed.

- I. By Sanskritisation a caste or a tribal community ventures to gain higher status in society.
- II. In Sanskritisation a low caste people practice the custom, rituals, food habits of the higher caste (e.g. they gave up meat-eating, drinking liquor and animal sacrifice to their deities).
- III. By Sanskritisation a caste or group adopt and follows customs and rituals which would qualify it for being treated as twice-born.

Prof. Srinivas noted how the tribal groups such as the bhils of western India, the Gonds and Oraons of central India claimed to be a “caste” through the process of sanskritisation and thus claimed a place in caste hierarchy.

De-Sanskritisation: Dr. D. N. Majumdar was critical of the concepts of Sanskritisation. According to his study, the members of the higher castes abandon their dress and rituals. It is called de-sanskritisation. For example, many Kashmiri pundits have abandoned their traditional mode of life.

2. Industrialization

Industrialization is also one of the important process of social change. Industrialization and Green Revolution are two major processes of change in the fields of industry and agriculture respectively in India. With the development of communication and transportation, electrification and irrigation the village scene have been changed considerably. Township like Jamshedpur, Rourkella, Bokaro, Durgapur etc. are example of the process of industrialization.

The “Green Revolution” in Punjab, Haryana and 'western Uttar Pradesh in 1966 by use of high yielding seeds, fertilizers and pesticides, assured irrigation and use of tractors and mechanical devices brought about significant changes of India's rural economy.

3. Urbanisation

Urbanisation denotes a diffusion of the influence of urban centres to a rural hinterland. Urbanisation also means growth of towns and cities. It also indicates gradual increase in the ease in size of population in urban centres.

Social Consequences of Urbanisation

Some important social consequences of Urbanisation are presented following:

1. Decline in social sympathy
2. Lack of social control
3. Decline in family control
4. Change in family structure
5. Change in the status of women
6. Professionalization of entertaining
7. Change in moral values
8. Expansion of slum areas
9. Increases in evil professions and crime

4. Westernisation

Prof. M. N. Srinivas defined westernization as follows: “Westernisation refers to the changes brought about in Indian society and culture as a result of over 150 years of British rule and changes occurred at different levels - technology, institutions, ideology, value”.

Chiefly westernization implies changes in dress, diet, style of eating, manners etc.

Consequences of Westernisation

Karisai (2004) in his book, "Sociology of social change" has enumerated the following consequence of westernization.

1. **Impact on Institution:** Westernization has influenced caste system, joint family system.
2. **Transvaluation:** Westernization has encouraged modern values like humanism, secularism. British Civil and Criminal Law influenced Hindu Laws.
3. **Re-definition of Hinduism:** under the impact of westernization, many religious reform movements occurred. Various aspects of Hinduism have been redefined in the light of modern science and knowledge. In re-defining Hinduism, Ramakrishna, Vivekananda, Maharshi Dayananda, Raja Ram Mohan Roy, Shri Aurobindo did commendable job.
4. **Spread of education:** The most significant impact of westernization was spread of education among different communities.
5. **Modernisation:** Modernisation is a process by which the modern ways of life and values are adopted by the society. It indicates a change in peoples food habits, dress habits, style of speaking, tastes and preferences, ideas and values, recreational activities etc. The scientific and technological inventions have modernized societies to a great extent.

The Rate and Direction of Social Change

Social change occurs in all societies. Its rate and direction varies from one society to another. The changes do not take place in the same momentum due to several factors.

These are presented below:

1. Physical environment

Physical environment topography of any region has considerable influence on the rate and direction of social change.

Example: In Mizoram and other state of North East the Jhum cultivation is widely prevalent from several decades due to its hilly and undulating topography. The Govt. Of Mizoram has taken initiatives for discontinuation of this primitive method cultivation and people are responding. The rate of change from Jhum cultivation to settled orchard cultivation is slow.

2. Social values, culture and norms

The rate of social change is greatly affected by the values, culture, norms cherished by the society generation after generation.

Example: Some festivals among the Mizo tribes are closely associated with Jhum cultivation. The festival "Pawlkut" is celebrated during cutting of forest, "Chapcharkut" during burning of dried forest and "Mimkut" is performed during harvesting of crop in October-November. Since these rituals and festivals are associated with Jhum cultivation, the rate of change of this primitive practice is very slow.

3. Integration of Institutions in Society

The rate and direction of social change is influenced by the extent to which the social institutions are integrated and cooperate properly.

Example: In West Bengal the Left Front Government came in power in 1977, and established a three tier Panchayati Raj Institutions with the participation of all sections of the rural people. Besides, implementation of Land Reforms and Operation Barga through distribution of ceiling surplus and vested land to the pattadar farmers was also a significant social change performed by the goodwill of the Government and Panchayati Raj Institutions.

4. Adoption of Technology by the Government

The rate of social change also depends upon the adoption of technology for providing better, quicker and transparent services to the citizens by the Government.

Example: Introduction of some e-governance projects like Bhumi Project (computerized land records) in Karnataka, CARD (Computer-Aided Administration of Registration Department) for registration of Deeds, Stamp duties, valuation certificate etc. in Andhra Pradesh, Gyandoot (community owned internet kiosks) in Madhya Pradesh, FRIENDS (online payment to the Govt. in Kerala) etc. are some of the ICT projects implemented by the State Governments which facilitated social change on ICT very quickly in comparison to other states who are lagging behind.

5. Role of great men and social change

Great men and their leadership facilitated social change in India. During the 18th century, few philanthropic (love of mankind) persons and social reformers like Pandit Iswarchandra Vidyasagar (1820 — 1891) and Raja Rammohan Roy (1772 — 1833) in Bengal played a pioneer role in the abolition of inhuman social customs like "SATI" and also introduced remarriage of the widows. Their work was followed by "Prarthana Samaj" established by Mahadev Ranade in Maharashtra. Similarly, Dayananda Saraswati was conscious of the serious maladies of contemporary Indian society. He rejected the hereditary caste system and criticized untouchability and Polytheism (belief in more than one God). He also opposed child marriage, and forced widowhood. Swami Vivekananda revitalized religion and created a national consciousness. There are also many great men who played important role in social change.

6. Population changes

Rate of social change also depends upon three basic population factors or demographic variables — fertility, mortality and migration. Changes in the size and distribution of population influence the rate of change in society.

Example: After partition of undivided India, migration from East Pakistan (now Bangladesh) into West Bengal created a lot of problems like rehabilitation, unemployment etc.

Resistance to Social Change

The social change can not occur very quickly or overnight in any society or in any country. It has to overcome many obstacles or resistance.

Important reasons for the opposition to Social Change are presented below:

1. Tradition and Reverence for the Past

People are traditional in their mindset, thinking and attitude. The old and traditional practices are upheld by the people.

2 The Power of Vested Interest

Persons who feel that social change endangers their interests are likely to oppose it.

Example: In Bengal abolition of inhuman social custom like –“SATI” and introduction of widow marriage were resisted by the vested interest persons of the society. inspite of these threatening and resistance Pandit iswarchandra Vidyasagar and Raja Ram Mohan Roy took a leading part against these persons and brought a social change.

3. Cost of change

Change involves costs which the society or any Government may or may not be willing to bear. The developing countries are not able to introduce high speed railroad like USA, Japan, China owing to resource constraints.

4. Intellectual Laziness and Administrative Defects :

In order to accept the new ideas replacing to the old one people require some amount of creativity, dynamism and rationality. If these qualities are lacking among people they can not realise the usefulness of the new ideas. Inefficient and corrupt administrative machinery also provide obstacles to change.

SOCIAL CHANGE AND DEVELOPMENT

Social change is a universal process and it works in several ways. Darwin, Herbert, Spencer, Sorokin and other sociologists have tried to explain the modes or patterns of development in different ways. Only a few modes of development resulting social change are explained in brief (following Ghai 2011).

1. Social change through evolution: Evolutionary process tells that social change is like an evolutionary change where society changes over from a simple to a complex society.

Example: In ancient times people acted as hunters and fruit pickers / pluckers on from forest. There after while under going evolution, they passed through grazing stage, agricultural stage and then into industrial stage.

2. Social change through development: Development is another pattern of social change. In the process of development there is a realization that society is moving forward. Development means changes in social life of people. Development is a mode of social change.

Few examples of social change through development process in Indian context are presented below.

1. Introduction of Panchayati Raj Institutions in 1959 by the Govt. of India (It was a planned social change) generated new leadership which gradually replaced the bureaucratic mind set.
2. The "Green Revolution" in Punjab, Haryana and western part of Uttar Pradesh during 1966 brought a rapid social change resulting socio-economic improvement of the farming community (except resource poor farmers) in the region.
3. By using scientific knowledge 'desert-bloom' has been made in Rajasthan converting unfertile land into fertile one resulting bumper agricultural production. This has developed socio-economic condition of the farming community.

3. Social change through social movement

A social movement is generally oriented towards bringing about social change. The movement is aimed at bringing about a change in the values, norms, ideologies etc. of the existing system. Social conditions are changed due to social movements and then social system experiences social change.

Example :

1. When Mahatma Gandhi started a movement against untouchability, It aroused a new awareness and people gradually began to hate untouchability
2. Raja Ram Mohan Roy (1772-1833) in Bengal played a pioneer role in the abolition of inhuman social customs like 'SATI' and introduced remarriage of the widows for the development of women.

PSYCHOLOGY

Etymologically the term "psychology" has its origin from two Greek words-psyche (soul) and logos (a rational course or a study). Thus, literally it means study or science of soul. But soul is an abstract thing. In modern society, the word psychology is taken to mean "Science of mind". Most contemporary psychologists are agreed on a definition of psychology "as the science of behaviour of organisms".

Some of the factors that influence an individual behaviour include his education, personal factors, situational factors and environmental factors such as around him, objects he confronts with, situations and conditions he lives. So psychologists, who are interested in studying human behaviour will not only study various aspects of behaviour but also study the similarities and difference among human reactions and what causes such behaviour.

Definition

Psychology is the science of human behaviour and experience.

Importance of Psychology in Extension Work

1. The abilities of individual
2. The needs of individual techniques to be employed to motivate them.
3. The hereditary and environmental factors that effect behaviour

4. The levels of achievement motivation of the individuals
5. The factors that lead to differential perceptions.
6. The causes of emotions and frustrations in human beings.
7. The causes of retarded learning.
8. The levels of knowledge, attitudes possessed by individuals.
9. Identification of the different psychological traits possessed by individuals.

EDUCATIONAL PSYCHOLOGY

Educational psychology deals with the behaviour of human beings in educational situations. This means that educational psychology is concerned with the study of human behaviour or human personality, its growth, development guidance, under the social process of education. Education is possible in human beings; hence human learning is the central core of educational psychology.

As discussed earlier, psychology like other natural sciences has two aspects - pure and applied. In its aspects of pure psychology it formulates broad principles, brings out theories and suggests techniques for the study of human behaviour which finds the practical shape in its applied aspects i.e., branches of applied psychology like vocational psychology, clinical psychology, crime psychology, educational psychology etc. Thus, educational psychology had been originated.

Definition

Educational psychology is that branch of psychology which deals with teaching and learning.

It describes and explains the learning experiences of an individual from birth through old age.

Meaning

Educational psychology is nothing but one of the branches of applied psychology. It is an attempt to apply the knowledge of psychology to the field of education. It consist of the application of the psychology principles and techniques to human behaviour in educational situations. In other words educational psychology is a study of the experiences and behaviour of the learner in relation to educational environment.

Educational Psychology as Applied to Extension

In education, especially in extension programme, we are concerned with behaviour psychology which includes educational, industrial and religious psychology.

These include: a) Environmental Adjustments, b)Group Behaviour and c) Improvement of the Environment.

Problems of Educational Psychology has three parts viz.,

- a) The understand the characteristics of behaviour,
- b) To analyze behaviour and
- c)T o interpret or find meaning in this analysis.

Understanding the characteristics of behaviour includes:

- | | |
|-------------|-------------|
| (a) sensing | (d) feeling |
|-------------|-------------|

- | | |
|----------------|-----------------|
| (b) perceiving | (e) willingness |
| (c) thinking | (f) doing |

The concept of man, in psychology is that he: (a) is an organism; (b) is able to adjust himself to the environment, (c) desires self-preservation, (d) desires race preservations and (e) has learning capacity.

For these purposes, he is provided with (a) receiving mechanism, which includes all sense organs - eye, ear, etc. (b) connecting mechanism - brain and nerves (c) responding mechanism - glands, muscles etc.

Importance Use of Educational Psychology in Extension Work

1. To know the learner his interests, attitudes, group behaviour, aspiration etc
2. To select and organize the subject matter of learning experience.
3. To suggest art and technique of learning as well as teaching.
4. To arrange learning situations.
5. To acquaint him with the mechanism of heredity and environment.
6. Helping in maintaining discipline.
7. Helping in evaluation and assessment.
8. Solving class room problems.

BEHAVIOR

Concept and Definition

The term behaviour is used in a very broad sense. It includes not only motor activities like walking, playing, digging *etc.* but also such activities which provide knowledge as perceiving, remembering, imagining or reasoning and emotional activities like feeling happy, sad or angry.

According to **Woodworth (1948)**. "Any manifestation of life is activity" and behaviour is a collective name for these activities. Thus behaviour is the activities of any living organism as a whole which can be observed and submitted to systematic analysis. When we talk about the study of behaviour in psychology, we mean the study of behaviour of all living organism man, animal, plant etc.

Behaviour can be defined as the actions or reactions of a person in response to external or internal stimulus situation

According to Crowder, Behaviour is any activity which can be observed, recorded and measured.

Nature of behaviour

Few important nature of behaviour is presented following Bhatia (1969). These are not complete because behaviour is explained in a broad sense.

1. Behaviour is both mental and bodily

The individual is both a body and a mind. His / her life is an integrated unity of mental and bodily activity. For purpose of any study we distinguish between mental process (*Viz.* thoughts, emotions, anxiety *etc.*) and bodily changes (*i.e.* movements, lions of hand, feet). But in actual experience mental activities cannot be separated or isolated from physical activities. Because life is a continuous flow of activity and its mental and bodily aspects though distinguishable, are not really separable.

2. All forms of behaviour are responses or reactions to stimuli

Stimulus is anything that produces a response in a living organism or anything that increases action (plural, stimuli). Stimulus in any form may come from the environment (*e.g.* a noise, a bright light) which may cause behaviour. For example, a bright light is stimulus and closing the eyes is the response (behaviour). Awarding "Krishi Pandit" to a farmer in the agricultural exhibition (stimulus) motivate farmers for better production (response). So all forms of behaviour are responses to stimuli.

3. Behaviour is described as 'adjustment to environment'

The organism acts to meet the needs of a situation. A person behaves and changes his behaviour to suit his physical and social environment. But the individual does not suddenly change his behaviour. It has been a matter of slow growth and development. Behaviour grows with the maturation of the body through learning skills and development of mental functions like memory, thinking, feeling *etc.* Psychology studies the growth and development of behaviour as a whole.

Types of Behaviour

Psychologists have classified behaviour in different ways. Two important types of behaviour are presented below

1. Overt and Covert behaviour

The behaviour that is visible and occurs outside the human being is called overt behaviour Example: playing football

The behaviour which is not visible and occurs inside of human being is called covert behaviour. Example: Thinking

2- Voluntary and Involuntary Behaviour

The behaviour which is controlled by human being is called voluntary behaviour. Example: speaking, walking, writing.

Behaviour that occurs naturally is called involuntary behaviour. Example: movement of heart.

Behaviourism

Behaviourism John Watson (1930) propagated a new doctrine, named behaviourism. He defined psychology as the science of behaviour (both human and animal). Behaviourism as a method of studying behaviour focused its attention totally on the overt or observable behaviour which could be objectively recorded. A behaviourist does not study any mentalistic notion like sensation, emotion, perception, feeling of fear *etc.* The psychologist measures the changes in heart rate and blood pressure which occurred due to feeling of fear.

Behaviourists highlighted the role of environment in shaping and modifying the behaviour of an individual. They have rejected the mental approach (soul, mind-body problem, emotion, perception *etc.*) of human behaviour.

The doctrine of behaviourism propounded by Watson and his associates ushered a new era in the field of psychology by making it somewhat materialistic, mechanistic, deterministic and objective like most of the physical and natural science.

Cognitive Behaviour / Psychology

The word cognitive (noun-cognition) means acquisition of knowledge through thought or perception, sensation *etc.* Cognitive behaviour can be studied by the theory of cognitive psychology. It studies man's thinking, memory, language, perception, reasoning and other mental processes in order to study the higher mental functions like insight, creativity and problem solving. Cognitive behaviour (psychology) is totally opposed to the stimulus - response approach of behaviour. Cognitive psychology maintains that there is more to learning and behaving than just single responses to stimuli.

The human mind does not accept an information from its environment in exactly the form and style it is conveyed to him. The conveyed information is compared with the information already stored in the mind. It is then analysed and often enlarged to give a new form. Finally it is subjected to interpretation and then used or stored according to the need of the time.

Edward Tolman, one of the founder of cognitive psychology, has made notable contributions in the field of learning, thinking and creative functioning.

Learning Domains — Cognitive, Affective, Psychomotor

Learning is a process. It is the continual growth and change in the brains architecture which receives information for processing and using it

Learning can generally be categorized into three domain: cognitive, affective and Psychomotor. Within each domain are multiple level of learning that progress from more basic, surface - level learning to more complex and deeper-level learning. When writing learning objectives, it is important to think about which domain is relevant to the learning experience.

1.The Cognitive Domain

The cognitive domain deals with how we acquire, process and use knowledge. It is the "thinking" domain. There are six level of cognitive complexities. These are hierarchically arranged -the simple to most complex mental operation.

These are presented below.

- 1. Knowledge:** Remembering previously learned material.
- 2. Comprehension:** The ability to construct meaning from instructional material including oral, written and graphic communication.
- 3. Application:** The ability to use learned material.
- 4. Analysis:** The ability to break down or distinguish the parts of material into its components to make better organizational structure.
- 5. Synthesis:** The ability to put parts together to form something unique or original.
- 6. Evaluation:** The ability to judge and take decision about the value of method, ideas, product or people (external criteria or principle used to reach conclusion).

2. The Affective Domain

The affective domain deals with our attitude, values, emotions, motivation, appreciation etc. It is the “valuing” domain. The affective domain affects learning regardless of the subject or the method. The five major categories are listed from the simplest behaviour to the most complex.

- (i) **Receiving:** Being aware of or attending to new information. **Example:** Merely watching the video satisfies the receiving stage.
- (ii) **Responding:** Actively participating in or interacting with new informmon. **Example :** Assessment of the video by the individual satisfy this stage.
- (iii) **Valuing :** It is attaching worth to the ideas or new information presented **Example :** If you believe that the video was worth considering and began to think about implementing it in everyday life, you have reached the valuing stage.
- (iv) **Organization :** Incorporating new information or experience into existing value system. **Example :** In case of the video, this would include implementing the technique presented in your daily life.

- (v) **Characterization** : It is the full integration / internalization resulting in new attitude, belief and /or behaviour. In the video example, this means telling others about technique or finding some way to pass the information to others.

3. The Psychomotor Domain :

According to Simpson (1972), psychomotor domain includes physical movement, coordination, and use of the motor-skill areas. Development of these skills requires practice and is measured in terms of speed, precision, distance, procedures or techniques in execution. Thus psychomotor skills range from manual tasks such as digging a ditch or washing a vehicle, to more complex tasks such as operating a complex piece of machinery or dancing. (Learning dance steps would fall under "skilled movements" in the psychomotor domain.) Since the psychomotor domain deals with manual or physical skills, it is the "doing" domain.

Level / Categories of Psychomotor Domain :

Simpson (1972) listed seven major categories of psychomotor domain from the simplest behaviour to the most complex behaviour.

1. Perception (Awareness) : It is the ability to use sensory cues (indication) to guide physical (motor) activity.

Example : Adjust heat of stove to correct temperature by smell and taste of food.

2. Set: The readiness to act. It includes mental, physical and emotional sets (position).

Example: Knows and acts upon a sequence of steps for conducting demonstration.

3. Guided Response : The early stages in learning a complex skill that includes imitation and trial and error.

Example : Perform a mathematical equation as demonstrated. Follows instructions to build a model etc.

4, Mechanism : The ability to perform a complex motor skill with some confidence. It is an intermediate stage of learning.

Example : Using a personal computer, Driving a car.

5. Complex overt Response : The ability to perform the complex motor skill correctly, quickly. It is the skillful performance of motor acts that involve complex movement patterns.

Example: Placing a car into a tight parallel parking spot. Operate a computer quickly and accurately.

6. Adaptation : When skills are well developed and the individual can modify motor skills to fit a new situation.

Example: Perform a task with a machine but the machine was not actually designed for that task.

7. Origination: The ability to develop an original skill which replaces the skill as initially learned.

Example: Construct a new theory, Develop a new and comprehensive training programming.

Apart from the taxonomy of the psychomotor domain as classified by Simpson (1972), other psychologist, Dave (1967) and Harrow (1972) also classified psychomotor domain in different level.

PSYCHOLOGICAL CONCEPTS

1. Intelligence:

In our day to day conversation, we often comment that a particular child or individual is very intelligent or possesses more or less intelligence. Our all such comments are based on the observation of the performance or behaviour of the individual concerned preferably in comparison with others of his own

group. The question arises what makes an individual behave or perform so well or poorly. No doubt interest, attitude, desired knowledge, skill and similar attributes count towards such performance or behaviour but still there is something left that can weigh more. For this, in psychology, the term used is intelligence. In, ancient India, our great Rishis named it "Viveka."

Some psychologists pointed out that there are people who seem to be more intelligent in some fields than in others. They put forth the theory that intelligence is a mixture of particular abilities aptitude. Intelligence means an aptitude for original thinking. It means an ability to solve new problems with facility and ingenuity and also can be said as a capacity to learn and grasp new concepts and approaches.

Definitions:

1. Intelligence is found in the ability of the individual to make good responses from the stand point of truth or fact (Thorndike, 1914)
2. Intelligence is a general capacity of an individual consciously to adjust his thinking to new requirements. (Stern, 1914)
3. Intelligence is the aggregate or global capacity of an individual to act purposefully, to think, rationally, and to deal effectively with the environment. (David Wechsler, 1944)
4. Intelligence is the ability of an individual to adjust himself to the conditions that arise in his environment. (Brown)

Intelligence may be defined as a sort of mental energy (in the form of mental or cognitive abilities) available with an individual to enable him to handle his environment in terms of adaption and facing novel situations as effectively as possible.

Scope of intelligence in Extension work:

The concept of intelligence can be used in various fields and aspects of one's life. In field conditions the various aspects of intelligence are very useful. It can be used in various situations. By this we can set an idea about I.Q. of an individual which is very useful for efficient utilization of that particular individual. Intelligence tests can be used to know the capabilities of an individual. All the type of individual irrespective of his mental strength can be utilized in one or the other aspects.

We can know the type of intelligence one possesses and can be used accordingly. We can know the various factors affecting the individual intelligence some of which can be manipulated and the others are out of our control.

Importance of intelligence in Extension work:

1. Intelligence does not follow a set stereotyped pattern but depends largely on the complexity of demands of their environment and the kind of training they receive.
2. Intelligence remains constant when the condition remain constant i.e. health, type of education, home situation, environment.
3. The differences in intelligence can be traced to either heredity or environment, since man is a product of both.
4. Gifted person with higher intellectual capacity can be better utilized by offering broader opportunities and with programmes for their accelerated growth.
5. It is to identify the mentally retarded people and problem men in rural society and such people are to be given special attention.

An extension worker can increase his effectiveness by using appropriate techniques for teaching farmers with different levels of intellect and thereby smooth introduction of the programmes of change.

2. Personality:

Personality usually refers to the impression, which an individual makes upon others, to those characteristics attributes which make an individual stand out from others, which make attractive or

unattractive or which strike others as unusual. An individual's personality is not a surface phenomenon which may be seen at a glance and when we talk of a person having "a fine personality", "no personality", "an aggressive or strong personality", they usually refers to the social effect which the appearance of an individual makes on others.

Psychologically speaking, personality is the sum-total of all that an individual is of everything that constitutes a person's physical, mental, emotional and temperamental make up. Our experiences, knowledge, memories, daydreams, study, learning, habits, thoughts, attitudes, beliefs, sentiments, intelligence, goals and ideals, in fact all that we are and all that we hope and aspire to become, constitutes our personality. Our tastes, our understanding, our enthusiasm and ambitious, our principles of life and conduct constitute our personality. But these elements of items are not put together in a jumble, they are organized into a whole, they are merged or blended into a unity and it is this whole system, which we call personality.

Even today, for a layman, personality means the effect, which an individual leaves on other people. Thus personality is made up of a number of elements like our personal appearance, intelligence, experience etc.

1. Personality is the sum of activities that can be discovered by actual observations over a long enough period of time to give reliable information. [Watson]
2. Personality is the more or less stable and enduring organization of a person's character, temperament, intellect and physique, which determine his unique adjustment to the environment. [Eysenck, 1971]
3. Personality is the sum total of all the biological in note dispositions, impulses, tendencies, appetites and instincts of the individual and the dispositions and tendencies acquired by experience.
4. Personality is the sum total of all that an individual is of everything that constitutes a person's physical, mental, emotional and temperamental make up. [Anonymous]
5. Personality is that which permits a prediction of what a person will do in a given situation. [Cattell, 1970]
6. Personality is the whole individual considered as a whole. [Munn]
7. The Dynamic organization within the individual of those psychophysical systems that determine his unique adjustment to his environment. [Allport, 1948]

Importance of personality in Extension work:

1. The study of personality of the people enable extension worker to judge and follow the method of guiding by selecting suitable teaching methods.
2. The study of personality of the rural people enables the extension worker to properly plan the programme to achieve for a desirable change in the rural communities.
3. By studying personality of farmers extension worker can know the values and value systems and he can precede his work in those lines.
4. By studying the personality of a particular individual, the extension worker can get a clear idea about his cultural traits and certain of his social traits.

3. Perception:

Perception is usually described as response to stimulus. It is an active process, whereby sensory reactions are related to relevant past experience of an individual when confronted with stimulus and most structured and meaningful picture is printed in the mind, which is finally perceived as the object.

Our reaction to any situation is determined by the way we perceive it. The same object may be perceived by two different ways by two individuals. Therefore perception is a very personal thing, e.g. If two farmers see a reddened cotton leaf in the field one may perceive' it to be the deficiency of magnesium

while the other one may interpret it for jessed attack. This clearly indicates that perception is highly individualized.

Definitions of Perception:

1. Perception is an individual's awareness aspect of behaviour, for which it is the way each person processes the raw data he or she perceives from the environment into meaningful patterns (R.E. Silverman).
2. Perception is the first event in the chain, which leads from the stimulus to action (E.G. Boring, H.S. Lang field, and H.P. Weld).
3. Perception is the organizing process by which we interpret our sensory input (Edmund Fantino and C.S. Reynolds).
4. Perception is the experience of objects, events or relationship obtained by extracting information from the interpreting sensations.
5. Perception is highly individualized psychological process that helps an organism in organizing and interpreting the complex patterns or sensory stimulation for giving them the necessary meaning to initiate this behavioural response.
6. Perception is the process of assimilating experience and relating them to previous experiences or attaching meaning, value, to them and of ordering them in to organized patterns of knowledge and feeling (Mc David).

Nature and Meaning of Perception:

Perception is the true beginning of knowledge. Perception can be studied on the following consequences.

1. **Perception is a process:** Perception is essentially process rather, than being a product and outcome of some psychological phenomenon.
2. **Perception is the information extractor:** Our sensory receptors are bombarded continuously by various stimuli present in our environment. Perception performs the duty by extracting relevant information.
3. **Perception is preparation to response:** Perception is the first step towards active behaviour of an organism. Our sensory receptors are just the receiving and transmitting centres of the sensory information.
4. **Perception involves sensation:** The relationships between sensation and perception are directive what we do have in sensation is a part of perception.
5. **Perception provides organization:** In addition to the help provided in deriving meaning to sensory impressions, perception also helps in its proper arrangement and organization.
6. **Perception is highly individualized:** Different individuals do not perceive objects, events or relationship in much the same way. Even individual perceptions of the same event may vary.

Importance and role of perception in Extension work:

1. Faulty perception: It occur above an object or task, will have serious implication in field. e.g. Good production of one H.Y.V. leads to motives farmers to grow H.Y.V.
2. Differential perception: If meaning of objects is not conceived properly it will lead to faulty adoption. e.g. gm/kg., lit./gallon, mil./lit.
3. Distorted perception: When messages are distorted, then the implementing or adoption also will be faulty, e.g.: If diagnosis of diseases of is wrong, then control measures also will be wrong.
4. If the farmer is to perceive the object or messages properly and accurately, the extension worker has to understand the qualities of stimulus and perceive it properly and then communicate the invention.

5. Perception of the individual mostly depends on his need of message. Hence the extension worker should communicate only need messages.
e.g. To the vegetable grower, pest and disease of sugarcane need not be told because he is not having the need of them.

4. Instincts:

Definition:

Instinct is usually defined as the faculty of acting in such a way as to produce certain ends, without foresight of the ends, and without previous education in the performance. (James, 1969)

Meaning:

1. Instinct is innate and inborn tendencies of psychological dispositions.
 2. They do not require any sort of previous experience or training for their expression.
 3. A particular instinct as an inborn tendency makes the organism.
- Mc Dougall says that all the specific human emotions are derived from instincts. According to him an instinctive behaviour has three aspects: cognition (Knowing), affection (feeling or experiencing an emotion) and conation (doing or striving)

When a child sees a bull coming towards him, he experiences an instinctive behaviour and undergoes the above three processes. Firstly, he perceives the bull, secondly, he experiences an emotion of fear and thirdly, he tries to run away. Therefore an emotion is an affective experience that one undergoes during an instinctive excitement.

5. Emotion:

The word emotion is derived from Latin word 'emovere' which means 'to stir up', 'to agitate' or 'to excite'. When we talk about emotions, we mean such psychological phenomena such as fear, anger, grief, love, affection etc. Emotion means motivated state of feeling that is the way it appears to the individual himself. Emotion is a disturbed muscular and glandular condition that is the way it appears to the observer.

Definitions:

1. Emotion is a state of being moved and stirred up in one way or other. [Ruch]
2. It is an effective experience that accompanies generalized inner adjustment and mental and psychological stirred up state in individual and that shows itself in his overt behaviour. [Crow and Crow]
3. It is a complex state of an individual in which certain ideas, feeling and motor expression (overt) combined to produce a condition recognizable as stirred up state. [Wood Worth]
4. It is an actually disturbed affective process or state, which is revealed by, marked changes in smooth muscles, glands and gross behaviour. [P. T. Young].

Importance / Role of emotion in Extension work:

1. The extension worker is like a teacher. He can achieve greater success in his work by arousing positive emotions of the learner. These emotions aid in learning. e.g.: extension worker motivate farmers to a particular practice by telling a success story or by field trip.
2. When individuals are emotionally excited he can do extraordinary things. The extension worker utilizes the fact in his work, e.g.: Achievements motivation.
3. Pleasant emotions helps in accelerating good health, e.g.: praising from dignified person lead to feeling of joy, happiness and good mental health.
4. Strong emotion may help to break some others crude and undesirable emotions. e.g.: Modern new appropriate cultivation practice lead to leave old undesirable cultivation practice.
5. Development of positive emotions aid in increasing creative ability of learner.

Emotions are strong motivating forces of actions. The extension worker should arouse right type of positive emotions for preparing the farmers for action. e.g.: Encourage for HYV cultivation which results in development of family condition and also on social development.

6. Frustration:

Man is ambitious by nature. He has so many aspirations and desires to be fulfilled. He plans and strives hard for their realization but it may not be possible that despite his best planning and efforts he may not get the desired success. At time he finds himself in the state of utter confusion and bewilderment (puzzlement). All the paths for going ahead seem to be blocked. This sort of affair along with the repeated failure in the attempts puts one into a state or condition that can be termed as frustration.

Frustration is a condition in which an individual perceives the wish goal blocked or unattainable. This creates some tension in the individual.

Definitions:

1. Frustration means emotional tension resulting from the blocking of a desire or need. (Good)
2. Frustration is the feeling of being blocked or thwarted in satisfying a need or attaining a goal that the individual perceives as significant. (Kolesnic)
3. Frustration refers to failure to satisfy a basic need because of either condition in the individual or external obstacles. (Barney and Lehner)

When individual's satisfaction of active or progress to a chosen goal is obstructed, thwarted or interfered it responses which are termed as frustration. (Woodworth & Marquis)

Nature and meaning of frustration:

1. Frustration is that stage or condition in which failure dominates the attempts.
2. In this state one feels a major obstacles in the satisfaction of one's basic needs or in the attainment of one's loved goal.
3. The significance of the goal and strength of the blockade increase the degree of frustration.
4. The cause of frustration lies both in the individual himself and his environment.

Scope of frustration in Extension work:

Frustration has got much in the proper execution of the extension work. The extension worker has to take much interest in seeing that frustration does not creep into the farmer. Once the farmer gets frustrated it causes mental block and progress cannot be achieved. For doing so the extension worker has to see that farmer does not develop unrealistic aspirations which can be done by having more extension contact with him. He can be taken to the meetings and can be made to learn the realities. Frustration also caused by inferiority developed in the farmers which act as barrier for development. Extension worker has to mingle freely with all sections of farmers so as to eliminate this feeling among the farmers which can work out wonders.

Importance/Role/Significance/Purpose of frustration in Extension work:

1. One of the important reasons for development of frustration is unrealistic aspiration. Train the people to have realistic aspiration to achieve the need and avoid frustration.
2. Frustration is blocks of progress or individual. Due to family problem a farmer can not show any progress in farming activities.
3. Negative emotions will lead to frustration. SO try to develop positive emotions.
4. Once frustration develops, farmer become inactive, uninterested in any progressive activities.
5. Creating favourable attitudes, moral values in people to avoid frustration.
6. Do not allow to develop inferiority feeling in farmers, which leads to frustration.

MOTIVATION

We see a student burning mid night oil during the examination days, a boy constantly, busy in learning how to cycle even after getting many cuts and what makes them to engage in one or the other types of learning and continue their efforts while facing even so many handicaps and obstacles? Such questions related to why of learning are always answered through a key word "Motivation". They learn because they are motivated to learn. They act because they are persuaded to act in order to satisfy their basic needs and attain the desired goals.

Teachers consider it as the art of stimulating and sustaining interest in learning. If efficient learning depends largely on effective motivation, the topic is of great and all embracing importance for the teacher.

Definition

Motivation is goal-oriented and need-satisfying behaviour.

Motivation is considered with the arousal of the interest in learning and to the extent is basic to learning.

Motivation is an internal condition arousing, sustaining and directing the intensity of effort.

Meaning

Motivation is goal-directed and need-satisfying behaviour. It explains why people do the things they do. It influences a person to do a thing in a certain way. Motivation is a process of initiating a conscious and purposeful action. Motivation makes a student interested in his studies and a farmer in his farming. It is the force which energizes a man to act and to make constant efforts in order to satisfy his basic motives. The vital role of motivation in life and learning is indisputable success and achievement in life and learning depends on your motivation. Motivation is the most powerful director of all.

It is true that motivation has inner and outer subjective and objective aspects. The inner aspect is the tension which needs and desires create in the individual and which has to be relieved through activity and the outer aspect is the goal, the element in the environment, which he seeks. e.g.: If a farmer is having a sprayer, another is in need of it he gets motivated to buy it.

Theories of Motivation

McClelland's needs Theory of Motivation

David McClelland has identified three types of basic motivating needs. He classified them as need for power (n/PWR), need for affiliation (n/AFF) and need for achievement n ACH).

Need for Power

McClelland and other researchers have found that people with a high need for power motivation possess the following qualities.

- (i) They have a great concern for exercising influence and control over others.
- (ii) They are seeking positions of leadership.
- (iii) Good conversationalists
- (iv) They are forceful, outspoken and often argumentative.
- (v) They enjoy public speaking etc.

Need for Affiliation

People with a high need for affiliation motivation possess the following qualities.

- (i) They derive pleasure from being loved.
- (ii) Maintain pleasant social relationships with others.
- (iii) Enjoy a sense of intimacy and understanding.
- (iv) Ready to console and help others in trouble.
- (v) Enjoy friendly interaction with others etc.

Need for achievement

People with a high need for achievement motivation possess the following qualities.

- (i) They have an intense desire for success as well as equally intense fear of failure.
- (ii) They set moderately difficult goals.
- (iii) Take a realistic approach to risk.
- (iv) Prefer to analyse and assess problems.
- (v) Tend to be restless and like to work long hours.
- (vi) Do not worry if failure occurs.
- (vii) Like specific and prompt feedback on how they are doing etc.

Hierarchy of Needs Theory (Maslow's Self-actualization Theory)

One of the most widely accepted theories of motivation is the hierarchy of needs theory developed by psychologist **Abraham Maslow**. Maslow saw human needs are in the form of a hierarchy, ascending from the lowest to highest and he concluded that when one set of needs was satisfied, people drives for higher need.

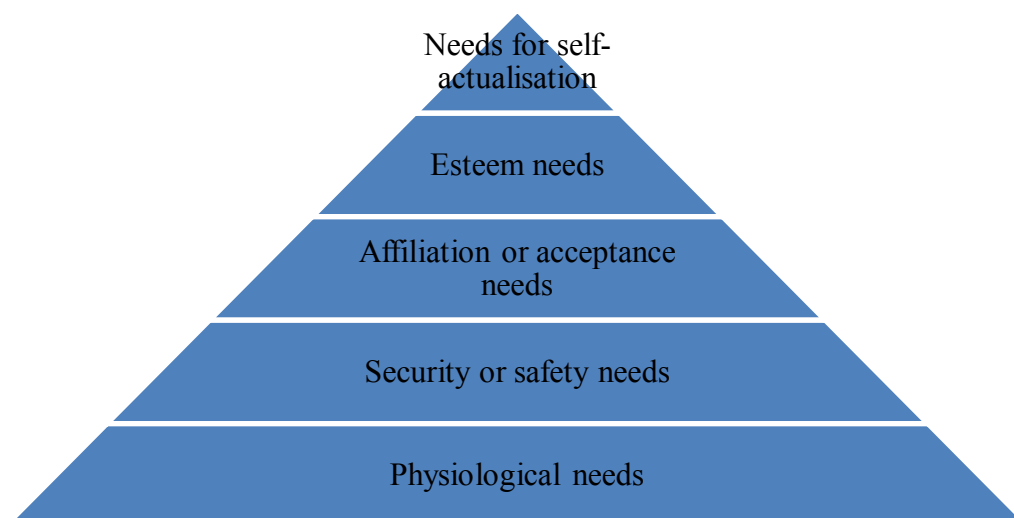


Fig. 7: Maslow's Hierarchy of Needs

1. Physiological Needs: These are the basic needs for sustaining human life itself, such as food, water, shelter, and sleep. Until these needs are satisfied other needs will not motivate people.

2. Security or Safety Needs: These are the needs to be free of physical danger and the fear of loss of a job, property, food or shelter.

3. Affiliation or Acceptance Needs: Since people are social beings, they need to belong, to be accepted by others.

4. Esteem Needs: According to Maslow, once people begin to satisfy first three types of needs, they tend to want to be held in esteem both by themselves and by others. This kind of need produces such satisfactions as power, prestige, status and self-confidence.

5. Need for Self-actualization: Maslow regards this as the highest need in his hierarchy. It is the desire to become what one is capable of becoming - to maximize one's potential and to accomplish something. Self-actualization can never be completely fulfilled by the general people.

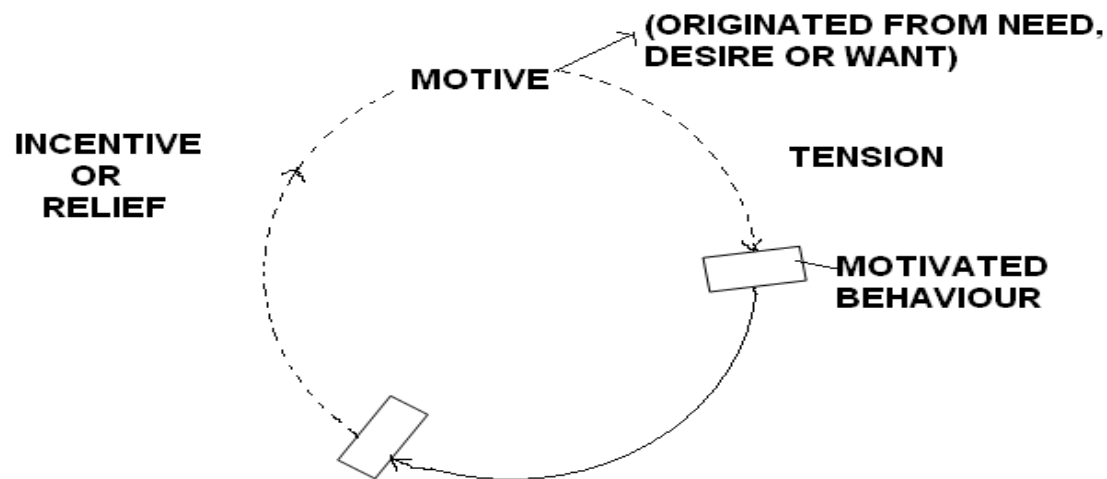
Importance of Motivation in Extension

Motivation is necessary for mobilizing both the village people and the extension workers for the success of extension programmes. After independence, the Community Development programmes launched in 1952 could not bring the desired results because there was lack of motivation among the extension workers. The extension workers were not properly motivated to achieve the result. Their morale was very low.

Motivation makes a farmer interested in his farming operation in proper way for increasing yield. A Panchayat member in the village if properly motivated can contribute his best effort in rural development work and drives the member to perform long hours of work. The progressive farmers or innovators can be motivated by rewards/prizes in kisan mela for good production. Motivation can bring healthy competition among the farmers for production of best quality crop.

Motivation Cycle

We find that the terms need, drive, tension, goal, incentive-all express different aspects of motivational behaviour. We may describe motivation as a state of the organism which involves the existence of a need that moves or drives the organism from within, and directs its activities to a goal that can bring about the satisfaction of the need. Therefore, motivation, as a general term constitutes a cycle completed in different stages, see figure.



In the beginning there is a need, desire or want which gives birth to drive or motive. The drive or motive so produced then motivates the organism to act for reducing the motive or drive. In this way, the behaviour of the organism becomes goal-directed. In the final stage of the motivational cycle, the organism reaches the desired goal and his drive or motive is satisfied.

When the organism reaches the desired goal, he gets immediate reinforcement or encouragement. In other words, he is further motivated to act. The term incentives in this way are the objects or situations satisfying the decried motives and intensifying the individual's motivation. Offering bonus to a factory worker or over-time allowance to a bank employee are the examples of incentives. e.g.: Beam (Vs) Hinosan....

In the past, if the farmers were spraying Hinosan and now adopted Beam and got better control of blast disease and increased the yields.

Classification of Motives

1. The desire for security:

Community always found in search of economic, social, psychological and spiritual security. Man wants protection for his physical being food, clothing, shelter. Security also means security within a group. It may also mean an adequate reserve of wealth to secure more material things in the future. The wish for security may also be satisfied by spiritual beliefs in the here-after and by the individual's feeling that he has a chance of going to a desirable locate (heaven) after death. In fact, in history, whole cultures have put emphasis on security. The Great Wall of China, the Maginot Line, the Tower of Babel, the innumerable forts and fortresses in several countries are striking examples.

2. The desire for affection or response:

Companionship, gregariousness and social – mindedness are the need for a feeling of belonging.

3. The desire for recognition:

Status, prestige, achievement, and being looked up to. Each individual feels the need to be considered important by his fellowmen.

4. The desire for new experience:

Adventure, new interest, new idea, new friend, new ways of doing things are the areas from where one can get new experience. Some people primarily want the thrill of some thing new, something different. The above four categories represent all the powerful motivating forces stated in a general way.

Maslow set forth a theory of human motivation which merits careful study by anyone who accepts the idea of human needs as being important in energizing and directing behaviour. The needs in order of importance to the individual are: (1) physiological needs, (2) safety needs, (3) love and belonging needs, (4) esteem needs, (5) self-actualization needs, and (6) the desire to know and understand.

Types of Motivation

The motivation can be broadly classified in two types.

1. Natural motivation / Intrinsic motivation

This type of motivation is directly linked with the natural instincts, urge and impulses of the organism. the individual who is intrinsically or naturally motivated performs an act because he finds interest within the activity. He is engaged in learning something because he derives pleasure within the learning of that thing. The activity carries its own award and the individual takes genuine interest in performing the activity due to some outside motives and goals.

When a student tries to solve a mathematical problem and derives pleasure in the task of solving it or tries to read poetry and reading itself gives him pleasure, we can say that he is intrinsically motivated. In these cases the source of pleasure lies within the activities. he solves the problems of reads the poetry for his own sake. Such type of motivation has real value in the learning task as it creates spontaneous attention and interest and sustains it throughout. e.g.; Innovator has been cultivating Jowar hybrid seed production and he has been to Bangalore and seen cotton hybrid seed production he tries to take up that getting naturally motivated.

2. Artificial / Extrinsic motivation

In such motivation the source of pleasure does not lie within the task. Such type of motivation has no functional relationships to the task. Here the individual does not leave something not for its own sake, but as a means of obtaining desired goals or getting some external award working for a better grade or honour, learning a skill to earn the livelihood, receiving praise and blame, rewards and punishment etc. all belong to this category.

In comparison to extrinsic motivation, intrinsic motivation as a source of spontaneous inspiration and stimulation brings better results in the teaching learning process. Therefore, it is always better to make use of intrinsic motivation wherever it is possible to do so. But in case, when it is not appropriate to make use of intrinsic motivation, the use of extrinsic motivation should not be suspended. Depending upon the learning situation and the nature of the task the choice for providing appropriate motivation should be made by the teachers, so that the learner may take profound interest in the learning activity. e.g.; Sericulture enterprise one has taken up not because of his interest but he is motivated by others and so he has started.

Techniques of Motivation

Although motivation is one of the prime tasks of instructing, it is both the student's and the instructor's responsibility. The lesson subject, the classroom atmosphere, the competence of the instructor, and the personality of the instructor and the student all affect a student's motivation. The following techniques will assist you in developing motivational strategies to use when instructing.

1. Make the subject matter interesting.

Plan motivational strategies are to keep the lesson interesting. A dull presentation causes students to become bored, restless, and uninvolved. A lack of response from the students will affect the quality of your instruction. As a result, you may lose confidence and enthusiasm, which, in turn, will have a negative effect on student motivation. To promote interest, use a variety of materials while instructing.

2. Establish goals.

The goals of instruction come directly from the learning objectives. Ensure that you present the objectives for each block of instruction so that students will understand exactly what they are expected to be able to do as a result of training.

3. Provide informative feedback.

Students need feedback when they are trying to meet goals. You can give either oral or written feedback, but be sure you give recognition for proper student behaviour and achievements. Also be sure to point out student errors and how to correct them. Recognizing good performance and pointing out areas that need improvement contribute to effective learning.

4. Show interest in your students.

Give students detailed feedback when they respond to a question or perform some task related to instructional objectives. Feedback may make the difference between a student's feelings of success or Failure. Always comment favourably on successful performance.

5. Encourage participation.

You should be open to student contributions and points of view. Students bring many different experiences to the learning environment. Use these experiences to stimulate interest and add variety to learning.

Role/Importance/Factors of motivation

Motivation as discussed earlier, occupies a central place in the teaching-learning process. It is, in fact indispensable to learning. Motivation helps learning in the following ways.

1. Child centred approach

It is the child who has to learn. The teacher only helps him to learn. e.g.; in a method demonstration extension worker teaches and farmer learn from him.

2. Linking the new with past

Experience is a great teacher. What has been learned or experienced in past proves as a good base for the present learning. e.g.; past experience on sugarcane ratooning motivate a farmer to learn Jowar ratooning.

3. Use an effective method and aids in teaching

It directly helps the teacher in motivating his students. e.g.; audio visual aids in demonstration.

4. Definiteness of the purpose and goals

One can not feel interested in a task if one is not aware of the purpose served by doing that. e.g.; high yielding variety cultivation serves many purpose like more yield, more social status.

5. Knowledge of the results and progress

Immediate knowledge of the results provides sufficient feed back to the learner. e.g.; applications of nitrogen as fertiliser give immediate knowledge of result.

6. Praise and reproof

They can be used for the achievement of desired motivation. e.g.; first prize in *kisan mela* motivate farmers for good production.

7. Reward and punishments

It brings the same results as praise and reproof. e.g.; 1st prize in *kisan mela* motivate farmers for food production.

8. Competition and co-operation

Competitions indicate the desire to excel other. Competition may take one of two forms; i) competition against another person. e.g.; better production than other farmers and ii) competition against one's own past record. e.g.; increase yield than previous year.

In case of co-operation members of a group co-operate with each other. It develops the feeling or community feeling. e.g.; it can be seen in record construction in village.

9. Ego involvement

Ego consists of attitude relating to the self. Every one of us tries to maintain status and self respect. Teacher should try to motivate his students by appreciating to ego maximization. e.g.; extension worker can motivate a progressive farmer to adopt a new innovation by maximizing his ego that he is the innovator and other farmer will follow him.

10. Development of proper attitude

Attitude is defined as one's set to react in a given way in a particular situation. Favourable attitude helps in learning and doing the tasks. e.g.; positive attitude towards seed production helps in learning about seed treatment practices.

11. Appropriate learning situation and environment

It helps in learning. Effects should be made to provide suitable learning situations and environment for effective learning. e.g.; group discussion (size of audience will be 20 to 30 farmers), sitting arrangement in circular should keep in mind.

TEACHING & LEARNING

We have said previously that extension is education. So every member of the extension service is an educator or a teacher. The Director is a teacher of his staff, the District Agricultural Officer is a teacher of his Extension Officers, the Agricultural Extension Officer is a teacher of the Village Extension Workers, and the Village Extension Worker, in turn is a teacher of all contact farmers or rural people, old and young. To do this job of teaching efficiently and effectively, every extension worker should understand and follow some basic principles of educational psychology.

Definition

Teaching is the process of providing situations in which learning takes place; in other words, arranging situations in which the things to be learnt are brought to the attention of the learners, their interest is developed, desire aroused, conviction created, action promoted and satisfaction ensured.

Meaning

1. The ultimate purpose of teaching is not merely to inform people but to transform them, to bring about the desired change in their behaviour.
2. If the learner has not learnt, the teacher has not taught.
3. Teaching is not filling a bucket; it is lighting a lamp.
4. Teaching is an intentional or purposeful process, not a hit or miss undertaking.
5. Effective teaching is done according to design, not drift; it is done by plan, not by trail and error.
6. Good teaching, therefore, requires careful planning of content, procedures, methods and techniques.
7. Good teaching is essentially good communication, and good communication requires sympathetic sharing, and clear explaining.

Definition

Learning is a process by which a person becomes changed in his behaviour through self-activity.

"Learning is a process of progressive behaviour adaptation".

Meaning

1. Learning is something that takes place within the learner.
2. It takes place within the individual when he feels a need, strives for fulfilling it, and experiences satisfaction with the fruits of his labour.
3. Learning is the goal of teaching.

Teaching - Learning process:

We must, however, avoid any artificial separation, since teaching and learning are really one process; they are, so to say, the obverse and the reverse of the same coin. We can symbolize this interaction as the

TEACHING ↔ LEARNING

PROCESS

It is now evident that an understanding of the teaching - learning process is essential to have a grasp of meaning of extension.

Extension is that type of education which is stretched out to people in the rural areas far and near, beyond the limits of the educational institutions to which the formal type of education is usually confined.

The teaching learning process is explained by Leagan's in following way....

Teaching is a process of arranging situation in which the important things to be learned are called to the attention of learners, their interest developed, desire aroused and action promoted.

Learning is the process by which an individual, through one's own efforts and abilities changes the behaviour. Process means a course of procedures, something that occurs in series of actions or events conducting to the desired end.

Learning experience

It is the mental and/or physical reaction one makes through seeing, hearing or doing the things to be learned, through which one gains meanings and understandings of the material to be learned.

Learning is an active process on the part of the learner. Hence, a learning experience is not attained by mere physical presence in a learning situation. It is what the participant does (i. e. his reaction) while in the learning situation that is all - important in learning. He must give undivided attention to the instructor and deep thought to getting the facts, understanding their meaning, and to seeing their application to his needs and problems. Effective learning experiences, therefore, can best be had in effective learning situations provided by a skilful instructor who knows what he wants, who has the materials to accomplish his goals and skills to use them effectively.

Learning Situation

A learning situation is a condition or environment in which all the elements necessary for promoting learning are present; namely;

- (1) Instructor
- (2) Learner
- (3) Subject matter
- (4) Teaching materials and equipment, and
- (5) Physical facilities.

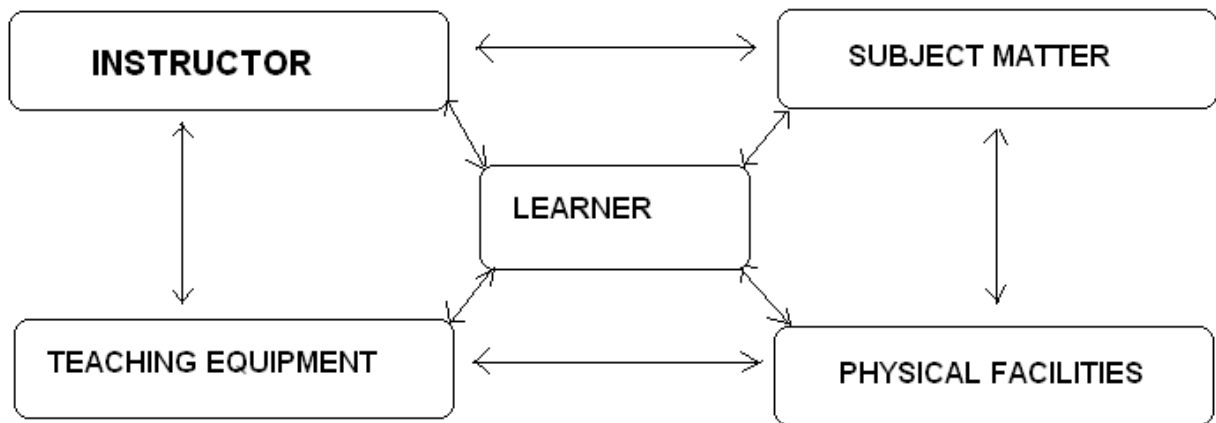
Below mention figure is a symbolic representation of the reaction the learners makes to the other four elements and the way these five elements react to each other.

Elements of Learning Situation

To have an effective learning situation, these five major elements should satisfy the following conditions:-

1. Instructor: should

- a. Have clear objective
- b. Know the subject matter and have it well organized.
- c. Be enthusiastic and interested in the subject.
- d. Be able to communicate with learners.
- e. Be democratic in his leadership.
- f. Allow student, to participation, ask for it.
- g. Be prepared, be prompt, be friendly, be courteous.
- h. Use a teaching plan.
- i. Speak so that all can hear.
- j. Set a good example of a good leader and teacher.
- k. Be skilful in this use of teaching materials and equipment.



2. Instructor: should

- l. Have clear objective
- m. Know the subject matter and have it well organized.
- n. Be enthusiastic and interested in the subject.
- o. Be able to communicate with learners.
- p. Be democratic in his leadership.
- q. Allow student, to participation, ask for it.
- r. Be prepared, be prompt, be friendly, be courteous.
- s. Use a teaching plan.
- t. Speak so that all can hear.
- u. Set a good example of a good leader and teacher.
- v. Be skilful in this use of teaching materials and equipment.

3. Learners: should

- a. Have need for information.
- b. Be interested.
- c. Be capable of learning.
- d. Use the information gained.

4. Subject matter or content

- a. Pertinent to learners' needs.
- b. Applicable to real life situations.
- c. Taught at intellectual level of learners.
- d. Well organized - logically presented.
- e. Presented clearly.
- f. Challenging, satisfying and significant to the learners.
- g. Fits into overall objectives.

5. Physical facilities

- a. Free from outside distractions.
- b. Temperature as comfortable as possible.
- c. Well lighted.
- d. Adequate space for the group.
- e. Furniture comfortable and well-arranged.

6. Teaching equipment and supplies

- a. Meet the needs effectively.
- b. Readily available.
- c. Each item used skilfully.

The nature of each of these elements, their relationship to each other, their role in the educational process must be thoroughly understood by the instructor and skill developed by him in handling them.

Effective learning situations are created through the skilful use of appropriate teaching methods and techniques.

LEADERSHIP

The activities of people are guided, stimulated or influenced generally by certain individuals in the group. Those who influence the activities of other members in a group are known as leaders and the other members as the followers. Previously it was considered that this ability of leadership can be possessed by certain individuals only on the basis of heredity or some other factors, however, as the research in social science progressed it has now been considered that leadership qualities are not necessarily inherited or can be possessed by certain people, but, it can be acquired by any one with proper training, guidance etc.

In extension work the leaders are considered to be the initiators of action that helps a group move in the direction it wish to move, the leaders are considered responsible for initiation and coordination of the activities of other group members to achieve the common goal of the people.

Definition

Leader

An individual whose ideas are helping to give direction toward the common goal of the group.

An individual works in a situation in which his ideas and actions influence the thoughts and behaviour of others.

Leadership

It is an activity in which effort is made for influencing the people to cooperate in achieving the desirable goal of the group.

It is a complex phenomena of group life in which different types of individuals carry out a variety of leadership functions depending upon both the qualities possessed by different group member and the specific need of the group at a given time.

Basic Elements of Leadership

- (i) The Leader - who leads
- (ii) The Followers - who follow
- (iii) The Situation - In which the group acts
- (iv) The Task - the purpose of common group action

Important Principles of Leadership

- (i) It may be formal and informal
- (ii) The leader, followers, situation and task are the basic elements of leadership.
- (iii) It is not necessary that any one who is leader in one situation will remain in other situation also
- (iv) The qualities of leadership are not necessarily in born, but learned.
- (v) Imposing the formal leadership may result in dual leadership.

Types of leadership

1. Informal leadership:

Informal leaders do not possess any established authority but do influence considerably the others action. e.g. Landlord, Patel, Priest, ex-servicemen

2. Formal Leadership:

These possess established authority. It is not difficult to identify them, as they exist - by and large by virtue of formal positions they fill. e.g. Sarpanch.

Classification of leader

1. Traditional leaders

They emerge out of tradition and stick to tradition. They are of static type and do not accept change. They have vested interests and have the fear that changes may overthrow them from power position. e.g., tribal chiefs.

2. Caste leaders

Followers belong to the same caste as that of the leader. The leader provides leadership in matters relating to the caste. e.g. In Rajasthan: Kirodilal Besla (Leader of gurjar community), Mr. Kirodilal Meena (Leader of meena community)

3. Religious leaders

Become leader by preaching religious doctrines, or performing religious acts or rituals. They advise followers on religious matters. e.g. Shankracharya..

4. Political leaders

They arise out of the political system. e.g., M.L.A., M.P., Chief Minister, Prime Minister etc.

- (i) **Autocratic leader:** An individual controls the whole group. All others follow as per directives of the autocratic leader.
- (ii) **Democratic leader:** The leadership does not exist in the hands of single leader. All members do contribute and share the responsibilities
- (iii) **Laissez-faire:** A leader believes that if you leave the followers according to his wish the work will be done. Here leader seems to have no confidence in himself.

5. Functional leaders

They are recognized as leaders because of their specialized knowledge and function in the society. e.g., Headmaster of a school, doctor, scientist, agricultural innovator etc.

6. Opinion leaders

These are the persons to whom people go for opinion and advice on certain issues. Opinion leaders also act as legitimizers and influence decision making of the opinion seekers. e.g. Mother in law, Oldest woman/man of village

Methods to identify the leader

Basically there are two types of leader used in agriculture.

A. Professional and

B. Lay leader's

A. Selection of Professional Leaders: What do you mean by Professional Leader?

He is the person who has received specific training in the field in which he works fulltime as an occupation and he is paid for his work performed by him. e.g., Agri.Offi.

The time-honored and most widely used method of selecting persons for positions of professional leadership is based primarily upon an interview and an evaluation of the past academic and occupational records of the individual. A large amount of information concerning a person can be acquired through an interview, and it is likely that the interview will remain a part of the method of selection even though other things may be added. The chief difficulty with the interview is that one can observe and evaluate the applicant only as he answers questions during a brief period.

In industry and management there has been an attempt to supplement the interview by subjecting applicants to a battery of tests. These testes may measure ability, aptitudes and interests. Some of the tests are designed to measure one's ability to solve problems within the field of work in which he wants to be employed. Tests of this type will measure both academic training and practical experience. The use of a battery of tests along with interview provides a better basis for selection than using the interview alone.

Performance Tests have been used in certain situations as part of the basis for selection of professional leaders. One type of these is the "Leaderless Group Tests" in which seven or eight persons are given a common tasks to perform and it is left upto the persons involved to select their own leader. Observations are made during the tests to determine which persons have become the leaders. Another type of test is to appoint an individual as a leader and then observe how well he directs the activities of the members of his group. The big advantage of these performance tests is that one can observe the potential leader in a real life situation in which he is functioning as the leader of a group.

B. Selection of Lay Leaders: What do you mean by Lay Leader?

He may or may not have provided any training and is generally works part-time with local groups and organization. e.g., Youth Club Leader. Lay leaders are also called voluntary leaders, local leaders or natural leaders. These local leaders may be formal or informal, depending upon whether or not they are regular office - bearers of organized groups.

Lay - leadership, formal / Informal are very important in the extension work because of the facts that these exercises greater influence the decision making and are very useful in rapport building. There are seven methods to identify/select the lay leaders from the mass/group.

1. Sociometry

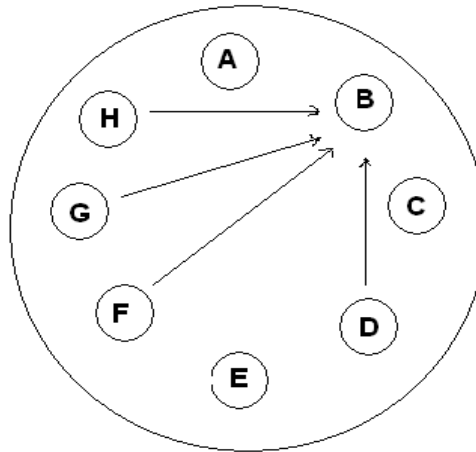
This is concerned primarily with obtaining choices in interpersonal relations, such as with whom one would like to work, play, etc., or to whom one would go for advice on farming or other problems. It attempts to describe social phenomena in quantitative terms. It may be used in selecting both professional and lay leaders, but a greater use of it is made in the latter case.

It is necessary that the persons involved in a sociometric test know one another. It is also to be emphasised that the grouping of individuals upon the basis of sociometric tests is in terms of choices

relative to specific situations. The tests are not designed to measure a vague factor called popular, but it is popularity or acceptance in terms of specific activities. Sociograms for the same individuals will manifest differences when the choices are in relation to different activities.

The method is very useful to the Extension Worker in finding out the "natural" or "local" or "informal" leaders in the villages, who are the influential persons that help in the introduction and popularisation of new improved practices in their communities or neighbourhoods. An extension worker goes into a given area and asks the farmers to indicate whom they ordinarily consult for advice on farming (or any particular aspect of farming in which the extension worker wants to introduce some improvement). Usually after a few interviews, it becomes apparent which farmer is the influential person or 'Natural' leader. Figure 20 (sociogram) illustrates this type of test.

When 'H' is interviewed, he may indicate that generally goes to 'B' for advice on farming. 'G', 'F' and 'D' may also say that 'B' is the one whose advice they take on farming. Then 'B' is operational or potential, "natural" leader for these people and therefore if the extension worker succeeds in inducing 'B' to take up certain new practice, it is quite likely that others will be influenced by his behaviour. It should be remembered that 'B' is the 'natural' leader or the one who initiates action for the others. 'B' may or may not hold an office or leadership position in organizations in this area. He may not even think of himself as a leader and may insist that he is not a leader. However, so far as these farmers are concerned, 'B' is the operational leader in relation to farming practices.



2. Election

Another method widely used in selecting leaders, consists simply of the members of the group electing a leader. The extension worker can guide or assist the local people in electing the right people for the right job by explaining to the group the functions of leaders in relation to particular problems, and outlining the qualifications of a good leader for the given purpose. It has been found that this election method can also be used for selecting persons to receive leadership training. For example, a group be asked to indicate what members of the group they think would be good leaders and What persons they would be willing to follow after the individuals had received specialised training. It is better for the extension worker to accept the chosen leaders of a group than to try to impose others by any pressure.

Kelsey and Hearne have suggested the following steps in guiding the local groups to find suitable leaders.

Steps in Discovering Leaders

- i. What is the job to be done?
- ii. What characteristics and skills does this job require?
- iii. Where is the person with these qualifications?
- iv. What group will support or follow this person?
- v. Of the qualities he has -
 - a) Which of them may be improved by training?
 - b) Which may not be changed materially

- vi. Of the qualities he lacks-
 - a) Which may be developed by experience and training?
 - b) Which may he never hope to have?
- vii. On what basis shall a qualified person be induced to serve?

Unless we proceed in an orderly manner from one step to another we shall not know where to look for trouble if our procedure falls. If we are not clear about what needs to be done, how can we explain or show a group what knowledge and skills are needed? When we know what qualifications are needed it is easier for the group to find a leader.

The following methods also have been tried and proved to be workable in locating local leaders.

3. The Discussion Method

Through discussions (on any subject) the person with sound knowledge and ability is soon recognised and a mere talker easily spotted. Discussion gives encouragement and assurance to the potential leader to express himself, and over a period of time may make him more confident in accepting some position of leadership, and emerge as a valuable leader.

4. The Workshop Method

Through this method, where the large group breaks up into smaller groups and the responsibility of the programme and decision-making rests upon the smaller unit, leadership emerges, in each group. Over a period of time, the extension worker can spot certain leaders who come to the fore in taking responsibilities. The extension worker or professional leader in the workshop has the position of consultant observer, discussion group leader etc.

5. The Group Observer

The extension worker should watch a community or group in action and then he will be able to spot potential leaders. He may observe the community in any type of situation. For obtaining the best results, the group should not be aware of this.

Rogers¹ who designates these local leaders as "opinion leaders" mentions the following two methods that have been used to locate these leaders in mass public.

6. Key Informants:

In a community may be asked to indicate opinion leaders in that area. This is cost-saving and time saving when compared to the sociometric method.

7. The Self-designating Technique:

Consists of asking a respondent a series of questions to determine the degree to which he perceives himself to be an opinion leader.

Role of leader

1.	Initiator	10.	Negotiator
2.	Orientator	11.	Expediter
3.	Facilitator	12.	Spokesman
4.	Encourager	13.	Planner
5.	Humanizer	14.	Executer
6.	Summarizer	15.	Recorder
7.	Fact seeker	16.	Evaluator
8.	Fact giver	17.	Analyzer
9.	Compromiser	18.	Educator

Importance of using Local Leaders in Extension Education

- 1) By using local leaders in extension education work, it is easier for the extension education agency to organize the rural people in-group.
- 2) It is easier for the extension education agency to convince the people through local leaders as the people do have trust in the local leaders.
- 3) Involving the local leaders in the extension education work can save the time of extension education agency.
- 4) It has an added advantage to use the local leaders as the message can be communicated to the local people in local language in an effective manner.

Reading material

Communication Skills and Personality Development

Ag. Extn. 5.3

COMMUNICATION: MEANING, DEFINITION, IMPORTANCE, KEY ELEMENTS OF COMMUNICATION

The word 'communication' derived from the Latin root '**communis**', means 'common'. This indicates that when we communicate, we are trying to establish '**commonness**' with someone through a message. Communication is a conscious attempt to establish commonality over some idea, fact, feelings and the like, with others. In simple meaning, it is a process of getting a source and a receiver tuned together for a particular message or a series of messages,

In fact, communication is so diverse concept that any attempt to create a generally accepted definition becomes so profoundly involved that it hinders rather than helps in clarifying and understanding the subject. Thus, communication covers a wide topic area. Any definition of a communication would be too general, too complex or too fragmented. We can explain various aspects of communication with definitions, but they would not be integrated. Different ways to define communication are as under;

1. Communication is the discriminatory response of an organism to stimulus. - Stevens (1942)
2. Communication is anything that conveys meaning that carries a message from one person to another. - Brooker (1949)
3. Communication is a process by which two or more people exchange ideas, facts, feelings, or impressions in ways that each gains a common understanding of meaning, intent and use of message. -Leagans (1961)
4. Communication may be defined as a process by which an individual- the communicator, transmits message (usually verbal symbols) to modify the behaviour of other individuals. - Hovland (1964)
5. Communication has as its central interest those behavioural situations in which a source transmits a message to a receiver with conscious intent to affect the behaviour. -Miller (1966)
6. Communication is all of the procedures by which our mind can affect another. - Weaver (1966)
7. Communication is the control of behaviour through descriptive and reinforcing stimuli. - Hartman(1966)
8. Communication is any occurrence involving a minimum of four sequential ingredients: (1) a generator of a (2) sign-symbol system, which is (3) projected to (4) at least one receiver who assigns meaning. -Robert Geyer (1967)
9. Communication is the arrangement of environmental stimulus to produce certain desired behaviour on the part of the organism. - Thayer (1968)
10. Communication is the mutual interchange of ideas by any effective means. - Thayer (1968)
11. Communication is the process of affecting an interchange of understanding between two or more people.-Thayer (1968)
12. Communication is a purposeful process, which involves sources, messages, channels, and receivers. - Anderschet *al.* (1969)

13. Communication is a process by which information and feelings are exchanged among individuals through common symbols, signs or behaviour.
14. Communication is a dynamic process, ongoing and ever changing, which involves five major elements. The five elements are the message, the sender, the transmission medium, the receiver, and feedback.
15. Communication is the process whereby person attempts to transmit thoughts, ideas, wishes or emotions to others to be received them in the very same meaning.

The majority of these explanations involve participation of the actors over a message or content, some sort of interaction, by some commonly understood means and with some effect. Analysis has also shown that some elements are involved in a communication.

Since our major interest is to transfer technology, we can define communication as a process by which extension workers independently, in a group or through a media, exchange either knowledge, attitudes or skills on behalf of an organization with any member of farming community, through such ways that each gains intellectual capacity, understanding and use of the message. This is not complete view of the process of communication but will provide our purpose.

Communication is frequently thought of as happening by means of verbal symbols but a socio-psychological analysis requires that attention be paid to the full range of symbols that may be used by human beings, including gestures, tone, facial expressions, drumbeats, telegraphic click, flags, smoke signals, colour, size, distance, sign or any signal.

Nature of Communication:

1. Communication includes common understanding: Communication is not just passing on information or any message by one person to another or many people. It involves common understanding between sender of message and receiver of the message. What communicator really wants to convey should be understood in the same structure, meaning, form, outline, appearance and all other characteristics of the message by its receiver is known as real communication.

2. Communication is a process: A process is any occurrence, which illustrates a nonstop change in time or any continuous action or treatment. In this situation communication is a process in which the operation of communication is continuously changing as the communication process. Thus, communication is not an intermittent but a continuous function of human beings. It is not an irregular act in which human beings prefer to connect. In other words it can be said that it is a dynamic, ongoing, ever changing, continuous act. The components within the process work together, each one affects the other. In fact, one cannot freeze communication at anyone point but must consider it a by-product of interacting individuals. A message from one individual creates a response from the other, which then becomes the message for the first individual in a continuous process.

3. Communication occupies many means: Communication is such a process, which occurs by many means, at many levels, for many reasons, with many people, in many ways. Thus it is not true that only specific way or mean is required to communicate any message.

4. Communication engages interdependence: The reciprocal, mutual dependence or give-and-take process is known as interdependence. Communication is generally a two-way process, involving stimulus and response amongst organisms and hence is both reciprocal and alternating.

There is a constant exchange of roles in communication. As roles change, each takes on the function of the other. Communication thus, involves an interdependent relationship between the participants. On the other hand, the levels of interdependence may differ from circumstances to circumstances.

5. Communication process contains a number of distinguishable parts: In its easiest form, communication contains at least three parts, i.e., expression, interpretation and response. Several variables are concerned in each one distinguishable part of the communication process.

6. Communication occurs within contributors or participants: Communication takes place within participants as well as between them. In other words it can be said that one has to be a part of process of communication to make it possible. Communication is determined by abilities and susceptibility of an individual to be active in the process. Fundamentally, all communication is the process of managing and converting raw sensory data in to functionally consumable or processable units of information.

7. Communication takes place at many levels: There are at least four different levels of points of focus from which communication may be visualized. These levels are intrapersonal, interpersonal, organizational and inter-organizational communication.

8. Communication takes place without uttering words also: All the time it is not necessary to employ words or spoken symbol to make process of communication possible. It is observed that many times, other than words symbols also make the process of communication possible. The symbols like gesture, movement, facial expression, eyebrow, lips, arms; tongue movements and many other ways are also used for communication.

9. Communication has many varieties: There are more than one ways to convey same content or messages to other in the process of communication. We can use any of them to convey same message. As for example to wish someone person can say Namaskar, Good morning, Jay Mataji, Sat-Sri-Akal etc.

10. Communication is essential to all human beings: Communication is essential for everybody. From morning to evening we need to communicate any message to others. Without communication everything is difficult. It makes everyone social, responsible, active, progressive, motivated, interested, dynamic and full of life.

11. Fidelity varies from one communication situation to another: Ideal communication is infrequent, if ever, achieved. Communication effectiveness differs from one situation to another.

12. Timing is critical: However clearly expressed and well-presented your message may be, if it arrives at the wrong time you might as well not have bothered. Old news is often worse than no news. Consequently, it is important to ensure that the channels you use can really deliver at the time you need them to.

Purpose of Communication:

Purpose of any communication as defined by Aristotle is the search for all the available means of persuasion. He clearly implied that the major ambition of communication is persuasion or conviction. A school of thought during seventeenth century, which was known as faculty of psychology made a clear distinction between the mind and the soul. The mind, soul duality was understood as a root for two independent purposes for communication. One purpose was intellectual and the other emotional. By this theory, one purpose of communication was informative, an appeal to the mind. The second purpose was persuasive, an appeal to the soul, the

emotions. The third purpose was entertainment and it was argued that we could classify the intentions of the communicator and the supporting materials used within these categories.

Festinger (1957) described the purpose of communication as consummatory and instrumental. According to Berlo (1960), the sole purpose of communication is to influence. According to him we communicate to influence; to effect with intent. He says that all communication behaviour has its purpose its goal, as the production of a response. When we learn to phrase our purpose in terms of specific responses from those attending to our message, we have taken the first step towards efficient and effective communication. Agricultural extension workers often forget that they are trying to affect farmers; they get too busy giving out information or reporting research. Berlo (1960) builds his thesis on the contention that the description of the purpose of communication should be 'behaviour-centered', i.e., expressed in terms of human behaviour and consistent with the ways in which people do communicate. However, some authors have made a distinction between the purpose of communication and that of mass communication.

Other thought described by Schramm (1964) for the purpose of communication as an instant reward and a delayed reward. He suggested that individuals are rewarded immediately on receiving or producing some kind of message. Both these are consummatory purposes, e.g., composing music for self-satisfaction. As against this, the purpose of some communication could be instrumental, i.e., the favourable response produced in an audience is instrumental in producing further behaviour on its part.

Lasswell (1948), Wright (1966) and Klapper (1966) have illustrated the aims and functions of mass communication as surveillance, interpretation and prescription, transmission of culture and entertainment etc.

Thus, above explanations articulate that the purpose of communication are to influence - to affect with intent by creating comprehension, understands and perceived use of the message. To fulfill such purpose, the approaches used could be informative, persuasive, entertaining or a combination of the same.

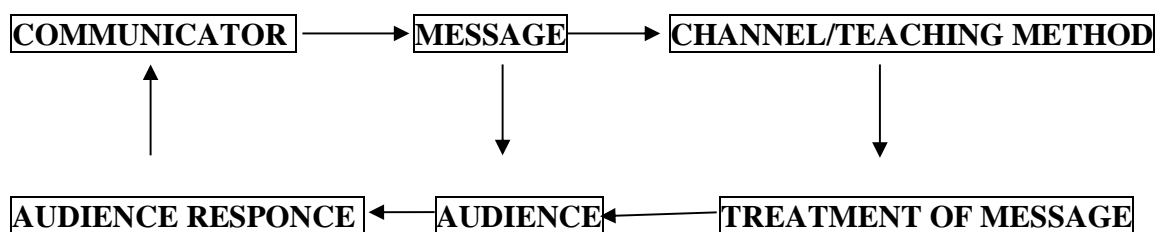
Importance of communication:

1. Communication is essential to all human association because our society life abounds communication
2. Communication is cement, which holds our society together.
3. People spend 78 % of their active time for communication through Listening, Speaking, Reading and Writing. This reality shows great importance of communication in human life.
4. We spend 10 to 11 hours in a day for verbal communication, it means there is a great importance of language in the process of communication. It helps in establishing relations with others by the mean of language.
5. In rural India, nothing is more important than transfer of agricultural technology communication is essential for this.
6. To overcome the ignorance poverty, to achieve socio economic prosperity and progress, communication plays an important role.
7. Detail information regarding what, why, when, how, for whom, where of the new developmental programmes can be disseminated by the way of communication.
8. To solve the problem of the people by giving useful information on the solutions of the problems to the people is possible by communication.

9. To bring physical, mental, social, economic and cultural changes in people, communication plays an important role.
10. To improve level of agricultural knowledge, skill, attitude, adoption and understanding among the farmers, it plays an important role.
11. Without communication any development work is not possible.
12. It has been considered as an important pillar for the all-round development of any nation, farmers or person.
13. To send latest technology to the farmers it is needed.
14. For entertainment communication is essential.
15. In one word, it can be said that communication is “life” or “existence” of any human, organizations and nations

KEY ELEMENTS OF COMMUNICATION

There are many communication models, which serve a variety of purposes. They range from single event analyses which can be used to instruct beginners, to complex models which are usually understood only by specialists in the field of communication. The model which contains six important elements viz., ‘Communicator’, ‘Message’, ‘Channel’, ‘Treatment of message’, ‘Audience’ and ‘Audience response’ is explained here.



1. COMMUNICATER

The communicator is key person in the process of communication. He is the responsible person to organize and manage whole process of communication. Main duty of communicator is to create common understanding between him and his audience by considering all other elements of communication through creating conducive situation for the whole process of communication.

Definitions of communicator:

1. Communicator is a person who starts the process of communication in operation.
2. Communicator is the source or originator of the message.
3. Communicator is the sender of the message.

There are different qualities required in any communicators to make communication process effective. These qualities are;

1. He should have various skills like:

- Verbal skills
- Writing skills

- Reading skills
 - Listening skill
 - Skill of selecting proper message as per the need and interest.
 - Skill of giving treatment to the message
 - Using different channels
 - Understanding his audience
 - Collecting evidences of results
2. **He should have knowledge like:**
- Which are his major objectives of communication process
 - All about his targeted audience
 - All about his message to be conveyed
 - Every aspects about channel to be used
 - How to make message easy to understand and acceptable
 - His own abilities and weakness as a communicator
3. **He should have interest in:**
- Bringing change in targeted audience
 - Bringing fruitful results through communication
 - Using various methods based on types of situations
 - Bringing improvement in his communication skills
4. **He should prepare:**
- Complete sketch of communication process
 - Plant of evaluating results of communication process
 - Various materials to give treatment to his message
5. **He should have proper attending behaviour like**
- Maintaining eye contacts with audience
 - Body language
 - Vocal style and verbal flowing
 - What to avoid and what not to avoid
 - Friendly attitude
 - Enough confidence to handle all other elements of communication
6. He should have empathy to understand audience's point of view.
7. He should have positive attitude to incorporate above all qualities to create ideal situation for the process of communication.

Explanation of ineffective communication caused by communicators:

As discussed earlier, communicator is an important person to make the process of communication successful; any of the following inaccuracies on the part of communicators can create ineffective communication

1. Fail in giving regards to the values, customs and habits of the audience
2. Fail to create favourable atmosphere for effective communication
3. Fail to establish two-way communication
4. Fail to have ideas to present, which are useful to audience
5. Fail to show relationship of the message with the problem of audience
6. Fail to understand others view point
7. Fail to understand that understanding power is very from person to person
8. Fail to use time and efforts needed
9. Feel that they have understood
10. Talk to a head of audience understanding
11. Talk while others are not listening

Factors responsible for the communication effectiveness of the communicator:

There are various factors, which are responsible for the communication effectiveness of the communicators. These factors are as under.

1. Communication behaviour of the communicator:
 - Communication skill.
 - Attitude
 - Knowledge level regarding different aspects of communication.
 - His status in the society.
2. Degree of clarity regarding what, why, where, how, for whom different types of roles he has to perform.
3. Relationship with audience
 - Orientation towards audience
 - His ability to solve needs of audience.
 - His credibility in the mind of the audience.
 - His homophile with the audience in terms of language, culture and other qualities.
4. Programme content
 - Complexity of the message.
 - Economic advantage of the content.
 - Work compatibility with existing needs

Thus, these factors should be considered by the communicators to be a winning communicator.

2. MESSAGE or COTENT

The message is what the sender attempts to transmit to his specified receivers. The content of the message includes any data, information, pictures, figures, dissertation, declarations, statements, claims, arguments, appeals and themes, which the sender transmits to the receivers. Thus a message may consist of statement of scientific facts about agriculture, sanitation, and nutrition or on any subjects.

A Message is the information, a communicator wishes his audience to receive, understand, accept and act upon.

Characteristics of ideal or effective message:

Following are some of the characteristics, which make message more effective and acceptable.

1. Accurate - Scientifically sound, factual and correct.

2. Adequate - Theory and practical should have a relation.
3. Applicable in real life situation.
4. Appropriate to the channel selected.
5. Attractive - According to the urgent need, interest and problems of the audience.
6. Clear - It should be easy to understand.
7. According to the mental ability of the learner.
8. According to the objective of the extension work.
9. According to the social, economical and physical capability of the audience.
10. Manageable - It should be handled by communicator.
11. Significant - Socially, economically and esthetically to the need and interest of the audience
12. Simply stated - Covering one point at a time.
13. Specific - No irrelevant materials.
14. Supporting both side - Positive and negative sides.
15. Timely - According to season.
16. It should be in local language.
17. Message must contain something worth saying.
18. Communicating meaning of message is a complex problem.
19. Characteristics of the message affect its response and understanding on the part of receivers.

Message Distortion:

The distortion of message is any kind of loss, deformation, misrepresentation or alteration taken place in original message while sending it to audience. There are three types of distortions of message viz., systematic or stretch distortion, fog distortion and mirage distortion.

1. **Systematic or stretch distortion:** In case of systematic distortion, no information is lost but it is changed or recorded in an orderly or systematic way. Thus in this case the information is purposely changed in a systematic way to serve some specific objective. This type of distortion may be useful for extension workers for effective treatment of the message.
2. **Fog distortion:** In fog distortion, information is lost, masked or 'fogged' over, because of the inability of communicator to encode or communicate and/or the inability of the receiver to interpret message with the complete fidelity.
3. **Mirage distortion:** In mirage distortion, audience receives some thing that 'which is not there actually'. Mirage distortion gives extra, unwanted information. It is unwanted because it is likely to result in mistaking the distorted message as relevant information, thus it introduces error in to insight. Extension workers, while painting a shining picture with regard to new ideas, may create a mirage-type distortion in the mind of the farmers.

Explanation of ineffective communication caused by message:

In the process of communication, content of message and other qualities of the message are the key factors to attract the attention of audience. Some of the following inaccuracies in the component of message can produce unproductive communication.

1. Fail to convert your message in to easy to understand form.
2. Fail to explain advantages of the message.
3. Fail to prepare and organize message properly.
4. Fail to present the message in a proper way.
5. Fail to select the message as per the need of the audience.
6. Fail to separate key message from the set of the content.
7. Fail to time the message.
8. Fail to view the message from the point of view of audience.

9. Use inaccurate symbols may be words, visuals or models.

3. CHANNELS

Social scientists recognize two types of channels, first type contains sensory channels based on the five senses of sight, sound, touch, smell, and taste, and second type includes institutionalized means such as face-to-face conversation, printed materials, and the electronic media.

We use the institutionalized means to transmit most of our messages. Each institutionalized medium requires one or more of the sensory channels to carry the message from the sender to the receiver. For instance, when we use face-to-face conversation, we make use of sight, gestures, expressions, sound or voice, and possibly touch, smell, or taste.

Social Scientists have generally found that the receiver's attention is more likely to be gained if the sender uses a combination of institutionalized means using two or more sensory channels. When applying the multi-channel concept to real situations, you need to consider the three basic institutionalized means and a minimum of two of the sensory channels, specifically sight and sound. Face-to-face conversation has the greatest potential for getting the receiver's attention.

Definition of channel:

1. A channel is anything used by a sender of a message to connect him with audience.
2. A channel is a physical bridge between sender and receiver of the message.
3. A channel is the avenue between a communicator and audience on which messages travel to and fro.
4. A channel is transmission line used for carrying messages to their destination.

As result of research carried out on the effectiveness of channels by many social scientists, following overviews have been drowned.

1. A variety of methods is more effective than a single method.
2. Different media attract different types of audiences.
3. Effective films are approximately equal to an instructor for the presentation of facts and the demonstration of concepts.
4. Face-to-face communication is the most effective form to improve skill of the audience.
5. If other conditions are kept constant, the mental functions of recognition, verbatim recall and suggestibility seem more effectively aroused in listening.
6. The critical attitudes and discriminative comprehension are favoured by reading.
7. New communication devices generally help to put across the message.
8. No single device is always the best in all the situations.
9. Non-printed devices are often very effective.
10. Oral argument is more effective in producing changes in opinion than printed argument.
11. The use of devices must be organized and planned.
12. Old aged persons and children prefer traditional channels to learn information.
13. Bringing change in the attitude of audience can be done effectively by using channel, which includes principle of "seeing is believing".
14. Bringing change in the skill of audience can be brought out effectively by using channel, which includes principle of "learning by doing".
15. Internet is best channel for speedy communication.

16. Effectiveness of any channel depends upon its credibility. The credibility is the degree of perception of audience given to any source of information, as competent and trustworthy resource of communication.

Noise: Many obstructions, barrier, hindrance, difficulty can enter while using channels. These are often referred as “NOISE”. The noise emerges from a wide range of sources. They are as under.

1. Failure of an audience to listen or look carefully.
2. Failure of channels to reach the intended audience viz., In case of Meeting – All people cannot or may not attend. Radio-All people do not have radio set or may not be turned in. Written material- many people cannot read many can't write.
3. Failure on the part of the communicator to handle channels skillfully.
4. Failure to avoid physical distraction.
5. Failure to select the channels according to the objectives of a communication.
6. Failure to use channels according to the ability of audience.
7. Failure to use enough channels in parallel.
8. Use of so many channels in a series.

4. TREATMENT OF THE MESSAGE

In the process of communication every message has at least two major aspects: content and treatment. The treatment of message is a specific way implemented by the communicator to communicate his message effectively so that message is understood and accepted by targeted audience. The main purpose of giving treatment to the message is to make the message clear, understandable and realistic to the audience.

The treatment of the message is the arrangement or ordering of the content by the sender. In order to make message more attractive and receptive, communicator should arrange the content in many ways. The treatment of the message plays very important role in communication. This process depends upon communicator's communication skills, attitudes, knowledge level, position in social systems and culture. In addition to this, audience and their communication skills, knowledge, attitudes, social position, and culture can also play a role in giving proper treatment to give to the messages. Emotional appeal has relatively more effect than rational appeal. However, research evidence is not very consistent on this point. The impact of a communication is also influenced by the order in which the various points are presented.

There are four bases or methods of giving treatment to the message. These ways are methods of general organization, methods of attracting attention, methods of talking and methods of symbol variations and device for presentation of idea.

1. Methods of general organization: It is how effectively you present message.

- Replicate key ideas or key concepts.
- Try to compare and dissimilarity of important ideas.
- Present the thoughts in sequential, logical or mental sequence.
- Try to illustrate one side or both sides of an idea based on situation and audience.
- Try to begin with powerful argument.
- Present message with reasoning.
- Describe clear end product or give that chance to audience to decide.

2. Methods of attracting attention: It is how effectively you attract attention of audience.

- **Intensity:** Use loud noise, a flash of light to attract attention of audience.
- **Extensity:** Use of large the stimulus to attract attention.
- **Movement:** Present message with unusual movement, gestures to attract attention.
- **Change and contrast:** Change in rate of movement, loudness to attract the attention.

3.Methods of talking: It is how efficiently you present idea by the way of effective speech.

- Try to cover only one idea.
- Try to present idea in your own natural style never try to act.
- Present timely idea in a specific manner with accurate and the latest background.
- If possible do not read your speech always.
- After knowing the audience, try to speak their language to make them realized that you know them and take care of them.
- Never try to criticize audience and their views.
- Try to speak in local language and use proverbs, stories, humour with personal touch.

4.Method of using symbols: It is how efficiently you select methods of presentation. Looking to the situation, try to use different symbols or methods to bring novelty while communicating message. One can use word symbol-speech, real object, model, specimen, graphs, film, slides, picture to make message understandable and acceptable.

5. AUDIENCE

The audience or receiver is an important element of communication process. The audience must present to interpret and respond to the conveyed message. The goal of communication is reached when the audience or receiver accepts the sender's message. Attention and comprehension are the means the receiver used to attain the goal of acceptance of the message.

Attention is the process by which the receiver tunes in on a message and listens to it, watches it, or reads it. The sender must consider his receiver and treat the message in such a way that the receiver's attention is more easily gained and retained. Comprehension implies understanding of the message by the receiver. Here again, the sender must consider his intended receiver and use message content and treatment that will enable the receiver to understand the message.

Once the receiver has attended to the message and comprehended or understood the content, his next task is to accept the message on at least one of three levels: the cognitive, that is, the receiver accepts the message content as true; the affective, the receiver believes that the message is not only true but good; overt action, where the receiver believes that message is true, believes it is good, takes the appropriate action. One consideration required at this point is to note that receivers are more inclined to accept message contents, which agree with their previous attitudes. The sender has a less difficult task if his message agrees with the receiver's attitudes. If the receiver disagrees with the sender's message, acceptance is less likely.

In short an audience is intended receiver of the message or the consumer of the message. In other words it can also be said that audience means those individual or people to whom communicator desires to convey message to act upon.

Types of Audience:

In fact classification of audience is moreover lengthy process because many factors, characters and situations can be considered to classify audience. They can be classified in many ways some of them are as follows:

1. **According to the occupation:** Farmers, Artisans
2. **According to the profession:** Engineers, Educators, Administrator
3. **According to the various characteristics:** like need, interest, social status, education level, economic status, knowledge, adoption, level of modernization, scientific orientation, risk orientation etc.
4. **According to availability:** like possible audience, available audience and active audience in terms of physically and psychologically active.
5. **According to the estimation:** like intended audience means they may be either listeners, who act on the message or listeners who do not act on the message, while unintended audience is other than intended audience of geographical area.

Factors associated with the audience determining effectiveness of communication:

As ultimate aim of any communication process is to influence the audience for expected results. It is not easy task for communicator to get desired response from the audience as a result of communication process. The effectiveness of communication on the part of audience is also equally important, as it is important in communicator. The effectiveness of communication in the audience refers to the degree to which a farmer/ person/ individual as an audience exposes himself to various information sources for information. There are many factors associated with the audience, which determine his effectiveness of communication. These factors are;

1. **Communication skill of the audience:** Abilities to listen, think, interpret and decode or understand the message are important communication skills of audience affecting to the communication process. The positivism in all those abilities leads towards effective communication.
2. **Attitude:** The positive attitude is an important force guides and motivates an individual to do particular activity. Thus, in case of audience, attitude towards him as self-respect, source of information, content or subject matter play major role in getting involved by himself in the process of communication. If these attitudes are positive, there are more chances of a good communication.
3. **Knowledge level:** The degree of awareness possessed by an audience for system, message, nature of the communication, channels and communicator can decide their level of involvement and ultimately degree of success of communication process.
4. **Position of audience in social system:** If degree of activeness in social system is more by the way of his contact with social organizations, social leaders, extension personals, there are more chance for him to be an active and beneficiary member of communication.
5. **Homogeneity of the audience:** If it is more homogeneity within the members of the audience in terms of their characteristics, there are more chances of effective communication.

Some of the facts about audience or receiver:

1. A good predictor of communication behaviour is educational level.
2. Active participation on the part of audience increases learning.
3. An individual chooses messages, which he thinks, will reward him.
4. Most of the persons have closed minds.

5. Most of the persons jump to conclusions.
6. Most persons listen only to words and not to their meanings.
7. Problem of lack of attention on behalf of audience affects communication.
8. The individual tends to select that which is most accessible.
9. The receiver is liable to misperceive the message.
10. The receiver responds to status conferred by mass communication.
11. The receiver's secondary experience is greatly enlarged by primary experience.
12. Uncommitted people become the propaganda target.
13. Motivated person can be a good audience.
14. Person as audience sometimes also likes to be a communicator.

6. AUDIENCE RESPONSE/FEEDBACK

Audience response or Feedback is the sender's way of determining the effectiveness of message. It is a mental or physical reaction, response, reply or behavioural changes taken place in audience as a result of communication process. At this stage, to receive results of communication process, original communicator becomes audience and original audience becomes communicator. Thus, during feedback, the communication process occurs in reverse direction.

In case of possibility of two-way communication there are more chances of speedy and easy feedback. If the sender sees furrowed brows or questioning facial expressions in his receivers, he knows that they did not comprehend his message. However, the overt action taken by the receiver is the feedback that the sender uses to determine the amount of influence he has with the receiver. Thus, feedback measures influence. We know that democratic leadership involves influencing others. Feedback provides a method of eliminating miscommunication. It is most effective in face-to-face conversation where feedback is instant.

Types of audience responses:

There are major five types of audience responses viz., Knowledge v/s Awareness, Acceptance v/s Rejection, Mental v/s Physical action, Remembering v/s Forgetting and Right v/s Wrong.

1. **Knowledge v/s Awareness:** The knowledge is understood information acquired by an audience as a result of communication process, while awareness is just superficial level of having information without proper understanding. If message is useful, need based, problem solving, presented effectively, there are more chances to convert it in to knowledge among the audience and reverse is in the case of just creating awareness. Communicator should try to create knowledge not just surface level awareness.
2. **Acceptance v/s Rejection:** If message possesses qualities to be knowledge of audience shows that it has all those positivism, which is expected by audience. The audience accepts such kinds of messages otherwise they reject the messages.
3. **Mental v/s Physical action:** Modification in mental status should be resulted in to physical action. A message with all positiveness first affects mind of audience and than moves toward real application.
4. **Remembering v/s Forgetting:** Useful, practical, functional, constructive, handy and valuable messages are remembered by audience, while remaining messages are forgotten by them.

5. **Right v/s Wrong:** If messages are communicated with effective organization and presented with proper treatment, correct and right perception takes place among the audience otherwise not.

Impression of audience response:

1. Books, newspapers, magazines, leaflets etc. have effects on audience response, which can be classified into five categories viz., instrumental, prestige, reinforcement, enriched aesthetic experience and respite.
2. Communication builds on existing attitudes.
3. Communication devices have capacity for thought control.
4. Cultural values and the social organization are determinants of communication.
5. Factors such as inducing action, social interaction after hearing the communication etc. affect communication, effects.
6. Influence groups are involved in message response.
7. Lack of previous experience affects communication.
8. Mass communication increases the commonality of experience among the public.
9. Mass communication makes stronger propaganda conflicts.
10. Misperception is a constant problem.
11. Much available Information is improperly absorbed.
12. Opinion may not be strongly related to extent or accuracy of information.
13. Response is a function of the whole personality.
14. Some mass campaigns demonstrate power in opinion.
15. The basic long-term effect of communication is the slow in filtration and colouring of the individual's view.
16. The pressure of traditional values strongly affects communication.
17. The social context of any communication influences its effect.

MODELS OF COMMUNICATION

Models are the symbolic representation of structures, objects or operations. Models are used to show the size, shape or relationship of various parts or components of an object or process. Models perform an Organising function (Explanation of relationship), Explanatory function (How a system operates) and Predicative function (Outcome of the actions or events).

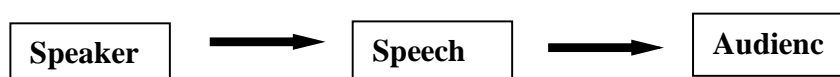
1. Aristotle's model

It is also called as **Rhetoric model** and it is the first basic **persuasive communication** model and he said that communication has three ingredients, namely Speaker, Speech and Audience.

Speaker – the person who speaks.

Speech – the speech that the individual produces.

Audience – the person who listens.



Aristotle uses ‘discovery of the available means of persuasion’ as his definition of the whole art of persuasive communication. Another implication persuasion is contingent upon the impression that a speaker creates or mentions. One of the **greatest fault in** this model was his view of **persuasion as a one-way process** flowing from the communicator to the receiver and he did not include his writings on the role of feedback can play in influencing the speaker.

2. Shammon and Weaver’s Model

Shammon developed an **information theory concern with the accurate communication** of information. He identified **three levels of the problems in communication** of information. Namely **Technical problems** (related to the accuracy of transference of information), **Semantic problems** (related to interpretation of meaning of information by the receiver) and Problem related to **influence or effectiveness** (related to success with which the meaning conveyed to the receiver). He introduced several concepts like coding, channel, capacity, noise and design of the communications.

It is also called **mathematical theory of communication or electronic theory** of communication. This model has five key elements/ components, namely source, transmitter, channel, receiver and destination.



Source: This produces a desired message out of set of possible messages.

Transmitter: This changes the message in to suitable signals from the transmitter.

Signal/ Channel: This carries signals from the transmitter to receiver.

Receiver: A sort of inverse transmitter which transfers the transmitted signals back into a message.

Destination: The final consumer of the message.

The key problem in this model is how to **overcome noise** and how **much redundancy in necessary** so that the receiver can successfully reconstruct a message from signals decimated by noise.

Redundancy: the amount of information that could be omitted or added in a noiseless channel.

3. Westley and MacLhean Model:

This is mainly based on the four stage model of the Newcomb. It is also called **mass media model**. This model elaborated the role that communicators of mass media play in modelling of the message.



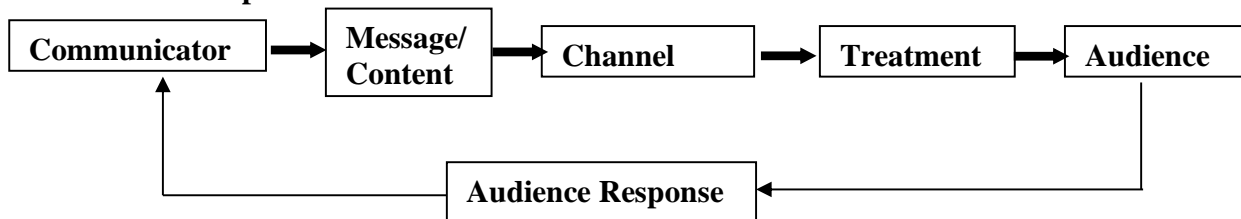
Here, the sender encodes the message which is passed through a channel and is then decoded and its meaning is drawn, after which the message is clear to the receiver.

Encoding skills: Writing and speaking.

Decoding skills: Reading and listening

4. Leagan's Model:

According to him, successful communication in extension education requires a skilled communicator sending a useful message through proper channel, effectively treated to an appropriate audience that responds as desired. This model indicates **six key elements in communication process**.



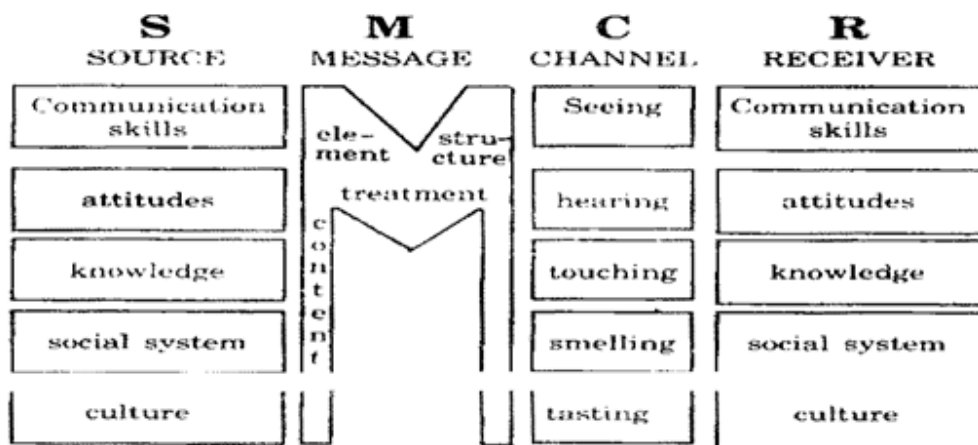
Leagan's emphasis on **treatment of the message and audience response** comes from his background in extension education. Audience response is the sixth key element about which Leagan's says that it is vital to the process especially when it is meant to bring about change in people. According to him, the extension educator derives from his knowledge of technology and extension process the principles and content from which he synthesises a system of communication to achieve educational objectives, **he should continue to communicate repeat, motivate, persuade until the desired response occurs on the part of the receiver**.

5. Berlo's Model of Communication:

It is the one of the **most wildly used model** and based on the impressive background of behavioural theory and research. It is also called as **SMCR model**. Berlo's communication model contains six **important ingredients** and **four elements**.



In this model, communication is seen as a continuous process in which noise is reduced by a process called feedback.



Berlo's model of communication

PRINCIPLES OF COMMUNICATION FOR RURAL AUDIENCE

In presenting information to the rural audience, whether through print media or through electronic media, the following principle may be followed. These shall improve comprehension of the information by the rural audience.

1. **Use simple language.** Explain the technical terms in short and simple sentences, using common words which have concrete meanings. Abstract and “jargon” should not be used. Avoid using text book language.
2. **Structure and arrange arguments clearly.** Present in a logical order, clearly distinguishing between the main and the side issues. Presentation must be clear, with the central theme remaining visible so that the whole message can be reviewed easily. Separate key points or sections of the message by use of careful layout and typography.
3. **Make main points briefly.** Restrict arguments to the main issues, clearly directed towards achieving stated goals without unnecessary use of words.
4. **Keep important information at the top.** Organize the write-up like an inverted pyramid, keeping the most important information at the top, so that if some portion from the bottom is deleted during editing, it won't affect the write-up much.
5. **Use lively pictures and photographs,** the pictures and photographs should be simple, bold, with good composition and good contrast of light and shade, so that the message intended to be conveyed is clearly brought out.
6. **Prepare a stimulating write-up.** The presentation should be interesting, inspiring, personal and sufficiently diversified to sustain audience interest. Accuracy, brevity and Clarity (ABC) are fundamental to a good presentation of information.

Basic Functions of Communication

1. **Information function.** The basic requirement of adapting and adjusting oneself to the environment is information. There must be some information about what is going on in the environment which concerns the people. The getting or giving of information underlines all communication functions, either directly or indirectly.
2. **Command or instructive function.** Those who are hierarchically superior, in the family, society or organization, often initiate communication either for the purpose of informing their subordinates or for the purpose of telling them, what to do, how to do, observable in formal organizations then in informal organizations.
3. **Influence or persuasive function.** According to Berlo (1960), the sole purpose of communication is to influence people. Persuasive function of communication i.e. to induce people is extremely important for extension in changing their behavior in the desirable direction.
4. **Integrative function.** A major function of communication is integration or of continuously offsetting any disintegration at the interpersonal or at the organizational level. This helps to maintain individual, societal or organizational stability and identity.

Levels of Communication:

To understand the relationship between people and communication, we need to look at that relationship from at least four different points of view, which, as already mentioned, Thayer (1968) referred four levels of analysis of human communication are (i) intrapersonal, (ii) interpersonal, (iii) organizational and (iv) inter-organizational communication.

1. Intrapersonal communication:

This submits to communicate with one's self. It means organizing and converting sensory data into meaningful messages having some relevance or value for an individual's earlier period, current or upcoming behaviour. Because the mental system of a human is continually busy in making sense of its environment in the service of that organism's adaptive and goal seeking needs. The question is not whether communication is going to happen, but what communication and with what consequences. Communication is a constant process and is determined by an individual's ability and susceptibility. However, these abilities are a function of the capacity of an individual's conceptual system to ascribe meaning or significance to certain patterns and sequences of the events going on in his internal and external environment. It has been said that we comprehend nothing of our words, which is not a part of us.

The interpersonal communication mainly occurs in face-to-face situations when the participants see, hear, and even touch the other person. Thus it gives immediate feedback. As a result, the participants in a communication encounter have a chance to structure and restructure communication based on the response of the other. So, intrapersonal communication is a co-function of the individual based on his immediate relevance from what is happening in his environment.

2. Interpersonal communication:

Life of human is largely a matter of communicating. Thus it would be difficult to make much sense of people and their behaviour towards one another without taking communication into account. It would be difficult to talk about human communication without taking into account something about the nature of people. This implies that interpersonal communication should be understood as we understand interpersonal behaviour. Inter-communication is thus not a different occurrence, but the same occurrence seen from a different level of analysis. The basic functions and processes of communication at the level of intercommunication are not different. phenomena are the same. People are a part of our environment. However, people bring expectations to their interpersonal encounters. They also bring expectations about the others' expectations. These expectations continuously influence their communication behaviour towards each other and their response to each other.

Thus, intercommunication may be seen as a process of reciprocal regulation and control. Intercommunication is thus an attempt on the part of at least one of the participants to establish, maintain, exploit, or alter some relationship with the other, either by adjusting himself to the other or by trying to adjust the others to him in some way. Thus, immediate and ultimate consequences are resulted by the communication processes, which occur within each participant.

3. Organizational communication:

An organization is an established structure of individuals who work jointly to attain certain common goals and objectives. Similar to human beings, organizations also establish and maintain themselves through communication with their environments. So, organizational communication refers to all of those data-flows that subordinate the organization's communication and inter communication processes in some way. Organizational communication is a different form of communication as it happens in a highly ordered setting. It is believed to be a two-way communication wherein which ideas should travel to and fro, without distortion of bias. It determines the quality and climate of human relationships in an organization.

Communication requirements and roles of organization are fulfilled through minimum three systems.

1. **The operational communication system:** In this structure, the information about duty related actions and operations are communicated within the organization from its different sources. Sometimes, mediators are involved for its gaining and final consumption to be made by the members of organization.
2. **The regulatory communication system:** This system conveys orders, rules and instructions that are intended to control material or information processing functions of the members of organization. Such regulatory functions are initiated by organizational managers may be within or outside the organization. These regulatory messages are thus the natural consequence of the problem-definition behaviour of the organization's managers.
3. **The preservation and growth of communication system:** This system is providing feedback about the situation of the people or the communication channels upon which the organization is dependent. It is useful for the inflow of resources or information from the environment of organization and internal functioning and relationship with various components of organization. Such a system is essential because it is the people in an organization who finally decide the working effectiveness and efficiency of any human organization. This system is useful for protective preservation or corrective Information of one sort or the other.
4. **Inter-organizational communication:** It is a system developed by every organization to communicate with another organization. Though, it should be set aside in mind that, organizations its self do not inter communicate but it is; only people working in organization do this activity. In other words it can be said that inter-organizational communication is an inter-organizational data-transportation linkage. Certainly communication occurs between people of more than one organization. Communication, with data generation, dissemination and the acquisition process of intercommunication, always occurs within some Individuals.

SOME CONCEPTS RELATING TO COMMUNICATION

Each act of communication has at least three phases-expression, interpretation and response. If the expression is not clear, the interpretation accurate and the response logical, one's effort on communicate will not succeed. As it is difficult to control how an audience shall interpret the message and respond to it, a powerful communication effort by the extension agent must be constantly exerted.

1. Agricultural Knowledge and Information System (AKIS)

Farmers use many different sources, including their own; to obtain knowledge is developed not only by research institutes but also by many different actors. There constitute the Agricultural Knowledge and Information System (AKIS) for an area or for a group of people and comprise : other farmers; Government extension organization; private companies selling inputs and buying the produce; banks and cooperatives; other Government agencies and marketing boards; leaders and elected representatives of the people; farmers' organizations; farm publications and mass media; voluntary organizations etc.

2. Frame of Reference

Each person has a stored experience of beliefs and values as an individual and also as a member of the society. This provides the background of stimulation which influences a person's behavior in a particular situation and is called the individual's frame of reference. The functionally interrelated external and internal factors operating at a given time constitute the frame of reference of the ensuing reaction.

A message received by an individual is interpreted in terms of the frame of reference of the individual. The message which challenges these beliefs and values may be rejected or misinterpreted. This tendency on the part of the receiver obstructs communication, in case the receiver and the sender do not have a common frame of reference.

3. Perception

Gibson (1959) defined PERCEPTION as the process by which an individual maintains contact with the environment. Kollat, Blackwell and Engel (1970) explained perception as the process whereby an individual receives stimuli through the various senses and interprets them. Perception of the same situation may differ from individual to individual due to differences in their experiences and ways of looking into it. The expectations, needs and ways of thinking influence how an individual interprets what is observed.

Perception is selective and we perceive what we want to perceive. Our perceptions are organized and we tend to structure our sensory experiences in ways which make sense to us. Perception is influenced by the environment in which communication takes place. It is not the intrinsic quality or attribute of an object, individual or message, but how people individually and collectively perceive them is important for extension.

4. Communication Fidelity

According to Berlo (1960), FIDELITY is the faithful performance of communication process by all its elements: Communicator, message, channel and receiver. Noise and fidelity are two sides of the same coin. Elimination noise increases fidelity, the production of noise reduces fidelity. The basic concern related to noise and fidelity is the isolation of those factors within each of the ingredients of communication which determine the effectiveness of communication.

The communication fidelity can be explained as the extent of desirable changes in receivers' behavior as a result of communication. The desirable changes are in receivers' knowledge, attitude and action. The objective of any communication effort is to have communication fidelity as high as possible.

5. Communication Gap

COMMUNICATION GAP refers to the difference between what was communicated by the extension agent and what has actually been received by the audience. Desirable action by the audience cannot take place if there is a large communication gap. The nature of communication gap may be of two types-the message does not reach the target and the message fails to produce the desired impact, even if it reaches the target. The following steps may be taken for reducing the communication gap. These are also essential for conducting an awareness campaign.

Where the message does not reach the target-

- Communication must be made available,
- Communication must be need based,
- Communication must be in time, and
- Use more than one channel of communication (minimum three channels comprising both mass media and interpersonal may be used simultaneously).

Where the message fails to produce the desired impact-

- Use credible (trustworthy and competent) channels of communication
- Repeat the message at least thrice at suitable intervals, in different time slots. In repeating the message some variation may be introduced in the format, keeping the central theme intact. This shall help in sustaining the audience interest.

- Take precaution against distortion of message (repeat and use printed media),
- Increase understandability of message,
- Give complete information,
- Help in maintaining the equilibrium (new technology may create some dis-equilibrium in farm and home for which adjustments must be made), and
- Give new ideas to create and sustain audience interest.

6. Time Lag and Communication

Lag means delay. While communication reduces time lag, the communication process itself may involve some time lag. There may be delay in getting the relevant information in the form of message and treat the message according to channel requirement and needs of the audience. There may be delay in organizing extension programmes. Some time may be spent in contacting the channels and the channels themselves may require some time to attend to the message in view of their preoccupations. The communication has to remain alert and take into consideration all possible delays that may occur during the communication process. By computing this time lag, the communicator shall plan and initiate the communication action well in advance so that the intended message reaches the audience in time. Use of computer based information Technology (IT) can significantly reduce the time lag in communication.

7. Empathy:

Empathy is the ability on the part of one person to understand the other person's internal frame of mind and reference, and accept the same. This acceptance does not mean agreement. Empathy is also defined as the ability of an individual to project oneself into the role of another person, to be able to appreciate the feelings, thinking and actions of another person (Rao, 1993). An extension agent who is empathic shall be able to understand and appreciate the farmers' situations and communicate with them effectively. Similarly, an empathic farmer shall be able to communicate with the outsiders to get the desired information. Empathy is an indispensable skill for people moving out of the traditional settings.

8. Homophily and Heterophilily:

According to Rogers (1995), a fundamental principle of human communication is that the exchange of ideas occurs most frequently between individuals who are alike, or homophilous. HOMOPHILY is the degree to which a pair of individuals who communicate are similar in certain attributes, such as beliefs, education, social status and the like. On the other hand, HETEROPHILY is opposite of homophily, and is the degree to which pairs of individuals who interact are different in certain attributes. When two individuals share common meanings, beliefs, and mutual understandings, communication between them is more likely to be effective. Individuals enjoy the comfort of interacting with others who are similar.

9. Heterophilous communication between dissimilar individuals may cause cognitive dissonance because an individual is exposed to messages that are inconsistent with existing beliefs and create an uncomfortable psychological state. Differences in technical competence, social status, beliefs and, language lead to mistaken meanings, thereby causing messages to be distorted or to go unheeded. Heterophilous communication has a special informational potential, even though it may occur rarely. Heterophilous network links connect two cliques, thus spanning two sets of socially dissimilar individuals in a system. These heterophilous interpersonal links are especially important

in carrying information about innovations. Homophily accelerates the diffusion process, but limits the spread of an innovation to individuals connected in the same network.

10. Propaganda, Publicity, Persuasion: Propaganda is deliberate manipulation of people's beliefs, values and behavior through words, gestures, images, thoughts, music etc. propaganda aims at propagating beliefs and values of the propagandist and presents only communicator's side of arguments without considering the arguments of the receiver's side. Publicity is based on truth and propaganda often suppresses the truth. One sided communication giving view-points of only the message-source, ignoring the view-points of receivers of the message, may sound propaganda despite the message being based on truth. Propaganda is often authoritarian in approach in influencing the people. On the contrary, persuasion is more democratic in influencing the audience to bring about change their attitude and behavior. In persuading people, the extension agent provides lots of arguments in favour of acceptance of the recommendations and provides evidences of gain (Dey, 1993).

11. Development Communication: Development is a widely participatory process of directed social change in a society, intended to bring about both social and material advancement for majority of the people through their gaining greater control over their environment. These may mean increasing agricultural production, industrialization, urbanization, improved housing, better health, higher education etc. Such widespread behavior change could only be attained if the mass media were harnessed for that purpose. Development communication is the use of communication to further development. In recent years, developing countries such as India have become increasingly interested in the possible uses of new communication technologies such as computers telecommunications, and the Internet to enhance connectivity, boost business, streamline governance, and improve the quality of life of their citizens (Sinh-ghal and Rogers,2001)

12. Communication Network: A communication network consists of interconnected individuals who are linked by patterned flows of information. The network interconnect-redness of an individual in a social system is positively related to the individual's innovativeness (Rogers, 1995).

13. Opinion Leadership: Opinion leadership is the degree to which an individual is able to influence other individuals' attitudes or overt behavior informally in a desired way with relative frequency. This informal leadership is not a function of the individual's formal position or status in the system. Opinion leadership is earned and maintained by the individual's technical competence, social accessibility, and conformity to the system's norms. When the social system is oriented to change, the opinion leaders are quite innovative; but when the system's norms are opposed to change, the behavior of the leaders also reflects this norm. By their close conformity to the system's norms, opinion leaders serve as a model for the innovation behavior of their followers (Rogers, 1995).

EXTENSION TEACHING METHODS

The extension-teaching methods are the tools and techniques used to create situations in which communication can take place between the rural people and the extension workers. They are the methods of extending new knowledge, attitude and skills to the rural people by drawing their attention towards them, arousing their interest and helping them to have a successful experience of the new practice.

1. Extension teaching method is anything used by a sender of a message to connect him with audience.
2. It is a physical bridge between sender and receiver of the message.
3. IT is the avenue between a communicator and audience on which messages travel to and fro.
4. Extension teaching method is transmission line used for carrying messages to their destination.
5. Teaching method can be defined as a method through which the results of research can be conveyed to the people.
6. Teaching method is the device used to create situation in which communication can take place between the instructor and the learner.

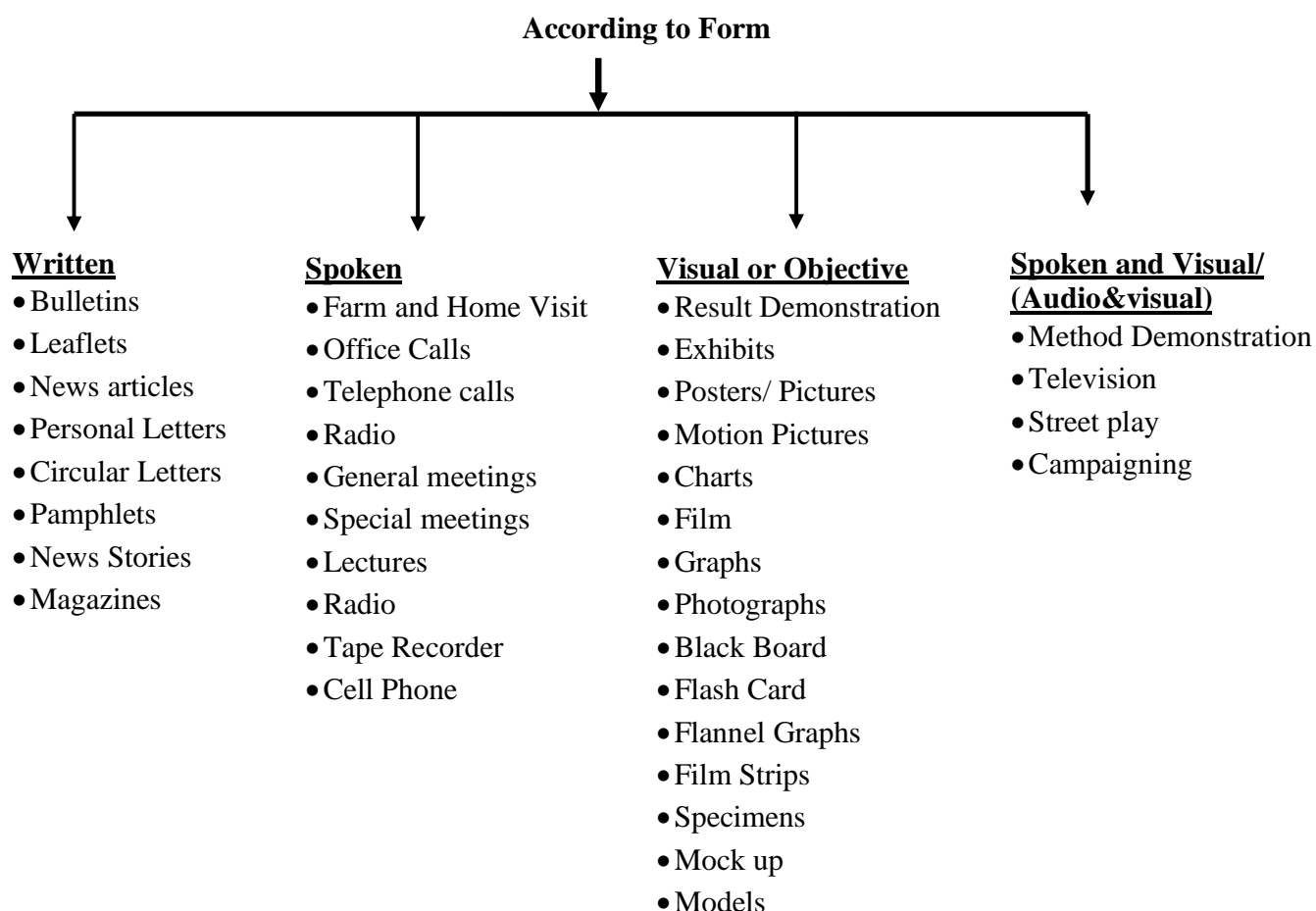
A proper consideration of these methods and their selection for a particular type of work is necessary.

Classification of Extension Teaching Methods:

One way of classifying the extension methods is according to their nature of contact. It is classification based on their use for contacting people individually, in groups or in mass. Based upon the nature of contact, they are divided into individual, group and mass-contact methods.

- **Individual contact methods:** Extension methods under this category provide opportunities for face-to-face or person-to-person contact between the rural people and the extension workers. These methods are very effective in teaching new skills and creating goodwill between farmers and the extension workers.
- **Group contact method:** Under this category, the rural people or farmers are contacted in a group, which usually consists of 20 to 25 persons. These groups are usually formed around a common interest. These methods also involve a face-to-face contact with the people and provide an opportunity for the exchange of ideas, for discussions on problems and technical recommendations and finally for deciding the future course of action.
- **Mass or community contact methods:** An extension worker has to approach a large number of people for disseminating new information and helping them to use it. This can be done through mass-contact methods conveniently. These methods are more useful for making people aware of the new agricultural technology quickly.

Important extension-teaching methods can be classified according to FORM classified by Bains and USE classified by Gallup. They are listed in the following chart.



Visual can be further divided in to:

14. 2 D Non Projected: Picture, Photographs, Posters, Charts etc.

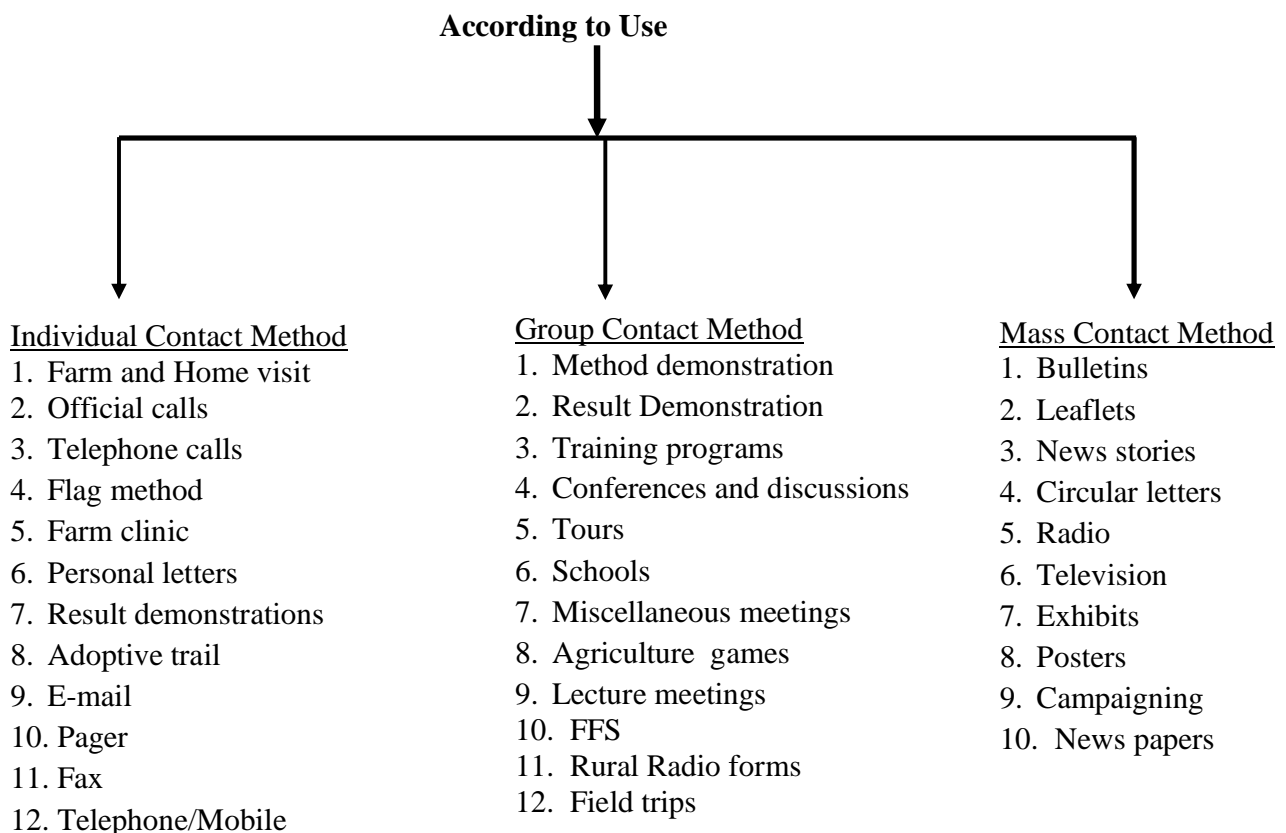
15. 3 D Non Projected: Models, Specimens etc.

16. 2 D projected: Film strips, slides, Transparency etc.

Audio & visual Further divided in to:

1. **Projected:** Method -demonstration, Drama, Puppet show, Bhavai etc..

2. **Non projected:** Film, Video, television etc...



Importance of Extension Teaching Methods:

There are many roles of extension teaching methods in the process of extension teaching, these roles or importance is as under;

1. To attract the attention of the people.
2. To open the mind of the villagers.
3. To demonstrate the new way of doing thing.
4. To produce desired results in terms of knowledge, skill and attitude.
5. To test out new innovation.
6. To see merits of the new innovations.
7. To make audience inquisitive.
8. To get village people started thinking and acting together.
9. To give correct concept.
10. To learn more.
11. To learn fast.
12. To provide experience not known to the audience.
13. To solve the problem of language.
14. To remember longer.
15. To arouse and sustain interest in teaching.
16. To change the attitude.
17. To reach more people at a time.
18. To provide variety in teaching.
19. To serve as a reminder.
20. To teach learners with experience.
21. To involve more numbers of the senses of learners.
22. Attention of the people can be attracted 87.00 percent by sight, 7.00 percent by hearing, 3.50 percent by smell and 1.50 percent by touch, thus to make use of senses of learners, teaching methods are useful.
23. People can remember 20.00 percent of what they hear, 30.00 percent of what they see, 60.00 percent of what they hear and see and 80.00 percent of they see, hear and do. Here also to involve more senses of learners, teaching methods are useful.

Factors affecting to the use and choice of the extension teaching methods:

For an effective use of extension-teaching methods, it is not enough to know these methods and their techniques. What is more important is the appropriate selection of a method or combination of methods for a particular situation. In fact, when a farmer is exposed to a new idea several times by different methods or a combination of methods, he is likely to accept it more quickly. There are many factors, which affect selection and use of teaching methods. A proper understanding of their selection for a particular type of work is necessary.

1. **Audience:** Audience is one of the important factors; one should keep in mind while selecting suitable teaching methods.

- **Size of the audience:** If size of audience is small, select and use personal contact method. If size of audience is large select and use mass contact method.
- **Ability of the audience:** If there is an ability to read and write in audience, we should use written form of teaching methods e.g. newspaper, book lets, leaf lets, folders. If our audience is illiterate, one should use personal contact methods or demonstration so that two-way communication can be made possible.
- **Age of the audience:** In case of old aged audience, use personal contact methods or traditional media like puppets, folk songs and drama. If we have young aged audience we should use modern method or electronic methods of teaching like computers, power point presentation.
- **Level of modernization of the audience:** Fatalistic audience should be contacted by personal contact methods. Modern or highly developed audience can be contacted by modern methods like e-mail, computer etc.
- **Familiarity of the audience with methods:** Educated audience have familiarity with literature like news papers, magazines, books, while old aged audience are more familiar with traditional media so they prefer traditional methods of teaching.

2. **Communicator:** The communicators, teachers, trainers or instructors are manager of whole process of communication and teaching and learning. Thus, they play important role in the selection and use of teaching methods.

- Ability to use various methods
- Skill of communication
- Knowledge of the communicator
- Interest, attitude and dedication of the communicator.

3. **Objectives of the communication:** Objective of communication plays key role in the selecting methods. If objective is just to create awareness, one can use mass contact methods like poster, if it is to improve skill, personal contact methods or “learning by doing” approach like farm and home visit or method demonstration can be proved best selection. In case of changing attitude of audience or learners, method, which uses principle of, “seeing is believing”, can be used. The result demonstration is best mean to change knowledge, skill and attitude of the learners.

4. **The subject matter:** For simple matter-use written materials, for complicated subject matter – one should use personal contact method of the teaching.

5. **The stage of the extension work:**-At the early stage -Result demonstration is necessary to gain the confidence. While at the later stage use of local leader can be used.

6. **Size of extension staff:** - If more staff members are available try personal contact method, If staff members are less in number use mass contact method.

7. **Availability of communication media:** Newspaper in rural area may not available. So looking to the availability of media in the area, where extension educationist wishes his message to flow should be selected.

8. **Relative cost of the media:** If we have big budget, use personal contact methods of teaching and if we have limited budget, one should use mass contact methods of teaching.

9. **Communicators familiarity:** Communicator should try to use only those teaching methods in which they have confidence and enough skill.

10. Stages of the adoption process: There are five steps of adoption process. First is awareness stage- when a person comes to know of a new practice but lacks the complete information. The second is interest stage- when he becomes interested in a new idea and wants to know more about it. The third step is evaluation stage - when he mentally applies the new idea to his present situation and evaluates it. At the fourth stage e.g. trial stage- he applies the new idea or practice on a small scale in order to determine its utility under his own situation; and at adoption stage - he decides to continuous the full use of the practice. Thus, it is the cumulative affect on people through exposure to an idea repeatedly that result in action. Extension workers should approach farmers using proper teaching methods of different stage of adoption.

- **Awareness stage:** Mass contacts
- **Interest stage:** Personal contact methods of the teaching.
- **Evaluation stage:** Result demonstration, personal contacts.
- **Trial stage:** Personal contacts, visit of successful farmers.
- **Final adoption stage:** Personal contact methods.

11. Availability of time: If more time is available to convey message one can use personal contact methods, if we have limited time, we should use mass contact methods.

IMPORTANT EXTENSION TEACHING METHODS AND VISUALS

Individual contact methods:

1. **Farm and home visit:** It is face-to-face contact made by an extension worker with the farmer or any members of farmers' family at his farm or home with one or more specific purposes.
2. **Office call:** it is call made by an extension worker to the farmers at his office for any purpose.
3. **Personal letter:** An individual letter written by extension worker to a farmer in connection with extension work.
4. **Circular letters:** it is a letter produced and sent to concerned people periodically or on specific occasions.

Group contact methods:

5. **Method demonstration:** it is a way to improve skill of the learners by practically involving them in matter to be learned.
6. **Result demonstration:** it is a way to prove importance of new technology by comparing it with old one in real situation.
7. **Field trip:** It is a method in which a group of interested farmers accompanied and guided by an extension worker, goes on tour to see and gain first hand knowledge of improved practices in their natural settings.

8. **Tour:** It is a method by which a group gets together for the purpose of seeing the results of new practices.
9. **General meeting:** it is a meeting of heterogeneous participants where information is passed for discussion or consideration for future action.
10. **Group discussion:** Group discussion is a planned and purposive interchange of ideas and feelings under the supervision of discussion leader. OR A group of people organized for the purpose of sharing information about specific topic and analyzing and evaluating that information to get some general conclusions or agreement.
11. **Lecture method:** Lecture is a formal, unilateral, oral communication, logically organized and presented accordingly to the level of learners.
12. **Seminar:** A seminar usually consists of expert who combines to explore a limited area of inquiry. It does not make any policy declaration (recommendations) but make it deliberation available to government and academic institutions and general public.
13. **Conference:** Conference seeks to bring together specialists, interested citizens, policy makers, executives and learners to discuss an area of practical importance with policy implementation. Small and large group discussion, steering committee and open plenary sessions utilized for improving the work of conference.
14. **Workshop:** It is a special type of working conference of a week or more duration. There are lectures, individual conferences and emphasis in working group. Work sessions arranged under the guidance of consultants. Individual participant can work on a special problem either individually or as member of groups. Mostly used for professional improvement and in-service training. Elements of workshop are: (1) Lectures by staff members (2) Group meeting with groups selected according to interest (3) Individual consultation and study (4) Informal discussion at odd time (5) Inspirational or special events (6) Library and other resources for study.
15. **Symposium:** Sort series of lectures usually by 2 to 5 speakers each with different viewpoint. Audience encouraged to address questions and comments. It gives overall picture of a complicated topic. The topic can be divided in to sub area or various facts, each one is being taken up by an expert, the presentation is proceeded by the chairman remarks followed by audience participation and concluded by symposium.
16. **Panel discussion:** Four to six members sit in semi circle facing the audience. Members of the panel under the direction of chairman discuss a controversial subject.
17. **Debate:** Team of usually 2 to 3 persons discuss controversial subject. Each speaker speaks for an allotted time. After debate audience also invited to join the discussion.
18. **Group interview:** Leader interviews persons on a platform. Leader dominated panel discussion. Excellent for getting information from experts.
19. **Lecture forum or discussion forum:** Speaker – audience technique where 2 or more persons present talks. Subject is controversial. Speakers do not tear each other's cases. Followed by questions answers period.
20. **Case study discussion:** It attempts to give a holistic view of special phenomena along with an analysis of the process, which is not only complex but also dynamic.

21. **Syndicate study:** It is specialized form of group discussion combined with individual assignment, which is collected and to the group report is presented to general assembly of all learners.
22. **Role play method:** This is real life of situation in which controlled environment of training institutions with a view to enable the learner to perceive the importance of feeling and attitude in administrative behaviour

Mass contact method:

23. **Leaflet:** It is a single sheet of printed matter, may be folded ones, which gives specific information on a particular topic to become aware.
24. **Folder:** Folder is a printed sheet folded more than once with a detail idea.
25. **Pamphlet:** Pamphlet varies in size from 12 to 24 pages.
26. **Bulletin:** Bulletin is a bulkier publication with 24-48 or more pages.
27. **Campaign:** It is intensive teaching activity undertaken to attract the attention of a mass towards particular problem for its possible solution through some actions. **OR** It is intensive teaching activity undertaken at the proper time for a brief period focusing attention in a concentrated form towards a particular problem in order to stimulate the widest interest and actions in the community.
28. **Radio:** It is a medium for mass communication, a tool for giving information and entertainment. It is a mass medium of communication and can reach a large number of people at any given time involving the least expense. Extension workers use the radio for communicating information on new methods and techniques, giving timely information about the control of pests, market news, etc. For this purpose, talks, group discussions, folk songs, dialogues and dramas are usually organized.
29. **Television:** It is an electronic audiovisual medium, which provides pictures with synchronized sound.
30. **Newspapers:** It is a periodical with the service type or news type of information.
31. **Exhibition:** It is systematic display of models, specimens, charts, posters, photographs, real objects and any informative materials in a sequence around a theme to create awareness and interest in the community.
32. **Visual aids:** Visual aids are the tools of teaching used through the sense of sight. They are supporting materials and they alone cannot create perfect learning. They should be considered as tools that help to do a job in an improved way.
33. **Model:** it is a replica of original object. There are four types of models; model which is bigger than original object - model of heart, ears, model which is smaller than original object – building's model, crossed model - it shows internal parts of any thing - oil-engine and working model: model of steam engine.
34. **Specimen:** it is representative part of original object e.g. live plant of any crop and insect.
35. **Slide:** It is a transparent picture or drawing or written material or figure mounted on the film or glass, which is projected on screen by projector.

36. **Film:** It is series of pictures with synchronized (matched) sound system arranged on the plastic role in such a way that when projected action pictures with sound can be enjoyed. **OR** A series of action pictures that being projected with a synchronized sound system to forms a story.
37. **Film strip:** It is series of still pictures, drawings, photographs or written materials arranged on 35 mm plastic role in such a way that information can be given to the audience step after step. A series of still pictures, drawings, photographs or written materials arranged on a 35 mm film.
38. **Overhead transparencies:** The overhead transparency has become an effective and commonly used visual aid for a variety of presentations. They can be used in large and small meetings that are formal or informal. Transparencies can be constructed or write on film or thermo-treated film.
39. **Flash cards:** flash cards are series of cards with illustration (pictures, figures, drawings) on the front side and useful information on the back side, and they are used to present information step by step to the group of the learners. **OR** It is series of illustrated cards flashed before a group in proper sequence to tell a complete story.
40. **Poster:** it is mass produced pictorial slogan used to create awareness among audience for single idea. A good poster creates awareness and curiosity among the people. It inspires and takes people towards action. It consists of three main parts. The first usually announces the purpose or the approach; the second sets out conditions and the third recommends action. A poster should be bold enough to attract attention of the people and should communicate only one idea at a time. It should have simple letters, which are clear and forceful. The size of a poster should not be less than 50 x 75 cm. The ABC style of poster making means, make it **Attractive, Brief and Clear**.
41. **Photographs:** They are a very simple visual aid used to show some action to catch the feelings and emotions of the people. They can be arranged to tell a story. One photograph can explain event of thousand words.
42. **Flannel-graphs:** Flannel graph is any kind of visual may be picture, photograph or a letter with a piece of sandpaper or any adhesive material on the backside. They can be made to adhere easily to a piece of thick flannel cloth, fixed on a board. They are used as an aid for group methods like informal talks or lectures. **OR** It is a graphic material used on flannel board for instructional purposes, where the material is glued with sand paper on its backside.
43. **Maps:** It is flat representation of the any surface with the help of diagram sowing its arrangement or components associated with each other. Certain presentations require the use of maps, such as talks on travel, international affairs, weather, and the location of various activities within a country.
44. **Charts:** They are graphic and pictorial representations used to tabulate a large mass of information or show a progression. They are visual symbols summarizing or comparing or performing other helpful services in explaining subject matter. Charts are helpful to communicate difficult and dull subject matter in interesting and effective ways in extension work.
- **Bar chart** – are made of a series of bars based on a measured scale. They are used to compare quantities at different times or under different circumstances. Bar charts are applicable only to grouped data.

- **Scatter chart:** Scatter charts are widely used in science to present measurement on two (or more) variables that are thought to be related. The origin of the chart- the point at which the x & y axes cross – should almost always be 0,0.
 - **Line charts** – Line charts are similar in some ways to scatter chart, with the extra constraint that the values of the variable have their own sequence. Moreover, those values are from a continuous series, such as temperature, pressure or commodity prices.
 - **Pie charts** – are in the shape of circles and used to show how several parts make up the whole. They may show percentages, proportions, etc.
 - **Tabular charts** – are used to bring together in compact form a mass of related data.
 - **Tree charts** - are used for showing development or growth of a thing. The origin is a single line or other representation of the trunk; the various developments are shown as branches.
 - **Flow charts** – are shown by lines and arrows to show organizational structure of any institutions.
 - **Pictorial charts**–Include picture and create a rapid association through the use of graphic messages like cartoons or illustrations. Each visual symbol indicates quantities.
 - **Over-lay charts**- Consist of a number of sheets, which can be placed one over the other conveniently. On each individual sheet a part of the whole is drawn. This enables the viewer to see not only the different parts, but also how they appear when one is placed over the other. After the final over-lay is placed it shows the ultimate product. This type of presentation is dramatic and effective.
 - **Pull charts** – Consist of written messages on a large sheet. Messages are hidden by piece of thick paper held in position. The messages can be shown to the viewer, one after another, by pulling out the concealing strips. This provides suspense to the viewer.
 - **Strip (Tease) charts** – are similar to the pull charts. While presentation, messages, words, pictures, etc., are kept secret by using strips of thin paper instead of thick paper. The ends of thin paper strips are pinned or pasted to both ends of the message on the big sheet. Whenever the message is to be exposed, one end of paper strip is stripped out. This has the advantage of surprise of anticipation
 - **Flip charts** - large pads of bound paper arranged on a stand, which carry a series of ideas sequentially. During presentation, the teacher flips individual chart one by one. This kind of chart exposes the audience to segments of the subject, in sequence and holds attention remarkably well.
45. **Puppets:** Puppets are very popular especially for village situations. It is used to communicate message with entertainment. Puppet shows can be effectively organized to gather the rural people. For a puppet show, a short story, brief scenes and quick dialogues are necessary. Such shows can teach a lesson about health, literacy, agriculture or home making.
46. **Blackboard / Chalkboard:** The chalkboard is an extremely accessible and popular visual aid. It is available in most public speaking and teaching environments. The chalkboard allows unlimited flexibility and spontaneous modification. One problem is that it is too often used as a substitute for greater creativity and preparation on the part of the speaker. The speaker should not address the audience while writing on the board. Write neatly and large enough for the entire audience to see. It is not in itself a visual material but a vehicle for a variety of visual materials. It is cheapest, most versatile and most universally used teaching aid.

47. **Bulletin board:** It is kind of visual board used for the purpose of making announcements in simple language, displaying events of short duration and photographs of local activities. It is also known as tack board.
48. **Flannel board:** It is kind of visual board on which one piece of rough textured material may be wool or khadi flannel adheres or sticks. Flannel board is used to present flannel graphs, which are backed with rough sand paper, which helps to stick on the flannel board.

DIFFERENCES BETWEEN METHODS

FILM	FILMSTRIP
<ol style="list-style-type: none"> 1. It is series of pictures with matched Sound system arranged on the plastic role in such a way that if they can be projected action pictures and sound can come out on the screen. 2. According to form it is audiovisual. 3. According to use it is mass contact method. 4. Pictures of film have motion. 5. It has more length. 6. More costly than filmstrip. 7. Sound track is there on film. 8. Have difference sizes; 8,16,35, 70 mm. 9. It is useful to create entertainment. 10. Two senses like eyes and ears are involved while learning so it is more effective than filmstrip. 	<ol style="list-style-type: none"> 1. It is series of still pictures, drawings, written materials arranged on 35 mm role in such a way that topic can be presented to the audience step by step. 2. According to form it is visual. 3. According to use it is group contact method. 4. Pictures of filmstrip have no motion. 5. It has less length compared to film. 6. Less costly than film. 7. Sound track is not there on f. strip. 8. It is available only in 35 mm. 9. It is useful to present topic step by step 10. One sense like eye is involved while learning so it is less effective than film.

>SLIDES	FILM STRIP
<ol style="list-style-type: none"> 1. It is a transparent picture /drawing written material /figure mounted on the film or glass which is projected on screen by projector. 2. They are in series but separate from each other. 3. It can be prepared from the glass cellophane paper or glass 4. Easy to prepare compared to filmstrip because hand made slide can be prepared 5. Slide Projector is needed to use it 6. There are chances of missing slides from the set of the slide because each slide is separate from each. 	<ol style="list-style-type: none"> 1. It is series of still pictures /drawings written materials arranged on 35 mm role in such a way that topic can be presented to the audience step by step. 2. It is series of slides but joint from each other. 3. It can be prepared from 35 mm film 4. Difficult to prepare compared to slides because like slide, hand made filmstrip cannot be prepared. 5. Filmstrip projector is needed to use it. 6. This type of missing of a part of filmstrip is nil because all parts or pictures are joint from each other
MODEL	SPECIMEN

<ol style="list-style-type: none"> 1. It is a replica of original object 2. There are Four types of Models; Model which is bigger than original object- Model of insect, Model which is smaller than original object –model of building, Crossed Model: It shows internal parts of any thing-Steam engine and Working Model: Model of steam engine 3. One has to create duplicate in smaller or bigger form of original thing. 	<ol style="list-style-type: none"> 1. It is representative part of original object 2. Generally specimens are taken from the live objects like; Specimen of plant of any crop, weeds, insects, flowers 3. One has to take some part from the original object.
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FLASH CARDS	FILM STRIP
<ol style="list-style-type: none"> Flash cards are set of series of cards with illustrations (pictures / figures / drawings) on the front side and useful information on the backside used to present information step by step against the group of the learners According to form it is non-projected 2D Visual for teaching Convenient size 25 cm x30 cm. Flash cards are non transparent. Drawing papers are used to prepare it. A set contains 10 to 12 cards. Audience can see the picture directly without any projector. It can be used anywhere. Easy to prepare. Cards are separate from each other On the backside of each card, information is written and hidden, for the use of presenter while presentation, which is in fact not seen by audience. 	<ol style="list-style-type: none"> It is series of still pictures /drawings /photographs or written materials arranged on 35 mm plastic role in such a way that information can be given to the audience step by step According to form it is projected visual for teaching. Available and convenient only on 35 mm film. Filmstrip is transparent material. The 35 mm film is used to prepare it. It contains 20 to 25 still pictures. Audience can see the picture on screen through filmstrip projector. It can be used only where electricity and dark rooms are available. Only expert can prepare it. Pictures are not separate from each other This type of facility is not there because it is transparent material; written information can be given but is seen by both; presenter and audience.
METHOD DEMONSTRATION (MD)	RESULT DEMONSTRATION (RD)
<ol style="list-style-type: none"> It is a way to improve skill of the learners by practically involving them in activity or matter to be learned. Principle of “learning by doing” is used, while organizing it. Comparison is not done. Comparatively it needs lesser time and money than RD. It is used to improve skill of the learners. It can be also organized in classroom condition or in actual fields. 	<ol style="list-style-type: none"> It is a way to prove importance of new technology by comparing it with old one in real situation Principles of “seeing is believing” and “learning by doing” are used while organizing it. Comparison is done between two technologies. Comparatively it needs more time and money than MD. It is used to change attitude, knowledge and skill of the learners. It can be organized only in actual field condition.

>PERSONAL CONTACT METHODS (PCMs)	MASS CONTACT METHODS (MCMs)
<ol style="list-style-type: none"> 1. Any methods by which contact of persons is made individually to communicate any thing are known as PCMs 2. Farm and Home visit, office call, telephone, fax, letter are the examples of PCMs. 3. These methods are useful to teach Skill to the learners or to motivate them for certain action. 4. Two-way communication is possible so, this is more effective than MCMs 5. More budget and time are needed to use these methods of teaching. 6. These methods are useful at the trial and final adoption stages of adoption process 7. Less number of persons can be contacted through these methods in given time. 8. There are more chances of establishing good relationship of ext. workers with the farmers. 9. There are some limitations for fast and urgent communication. 	<ol style="list-style-type: none"> 1. Any methods by which contact of persons is made in a big mass to communicate any thing are known as MCMs. 2. TV, radio, newspaper, film, drama, puppet show etc. are the examples of MCMs. 3. These methods are useful to create awareness or to improve knowledge of the learners. 4. Two-way communication is not possible so this is less effective than PCMs 5. Comparatively less budget and time are needed to use these methods of teaching. 6. These methods are useful at the initial stage of adoption process. 7. More number of persons can be contacted through these methods in a given time. 8. There are less chances of establishing good relationship of ext. workers with the farmers. 9. Fast and urgent communication is a major function of MCMs.

Diffusion and adoption of Innovations

1. **Diffusion:** Diffusion is the process by which **an innovation is communicated through certain channels over time among the members of a social system.**

It is a process by which innovations are spread to the members of social system. In this process new ideas are spread from its source of invention or creation to its ultimate users or adopters. Diffusion is a special type of communication. It is concern with new ideas or messages, whereas communication includes all type of message or ideas.

2. **Diffusion Process:** Diffusion process is the spread of a new idea from its source of invention to its ultimate users.
3. **Innovation:** Innovation is an idea, practice, or object perceived as new by an individual.

If the idea seems new to the individual, it is an innovation. Newness of an innovation may be expressed in terms of knowledge, persuasion or a decision to adopt. The technologies, practices developed through research are innovations.

4. Adoption: Adoption is a decision to make full use of an innovation as the best course of action available.

Adoption is the use of new idea continuously on a full scale.

Adoption is essentially a decision making process. Decision making is a process which may be divided into a sequence of stages with a distinct type of activity occurring during each stage. Similarly, the way in which individual adopts an innovation is viewed by most researchers as a process, a series of related events in a time sequence.

5. **Adoption Process:** Adoption process is the mental process through which an individual passes from first hearing about an innovation to its final adoption.
6. **Adopter:** is a person who has continued full use of an innovation.
7. **Overtime:** It is the time required to adopt from its origin. There is always a time lag between the introduction of an innovation and its adoption by individuals and communities.
8. **Rejection:** A decision not to adopt an innovation. Involve a decision on the part of the farmer not to adopt an innovation.
9. **Discontinuance:** A decision about an innovation may be rejected at any stage in the adoption process. A decision to stop using practice previously adopted is called discontinue. Involve a decision to cease the use of an innovation after previously adoption it.
10. **Innovativeness:** The degree of which an individual is relatively earlier in adopting new ideas than the other member of his social system.
11. **Decision Making:** The process by which an evaluation of the meaning and consequences of alternative lines of conduct is made.
12. **Change Agent:** A professional person who attempts to influence adoption decisions in a direction that he feels is desirable.
13. **Perception:** is the way in which an individual responds to any sense or impression which he detects.

Stages in Adoption Process

Five stages of adoption identified by the North Central Rural Sociology Sub Committee for the study of Diffusion of Farm practices (1955) are widely accepted and received worldwide attention. The five stages of adoption process are: (1) Awareness (2) Interest (3) Evaluation (4) Trial (5) Adoption

They also indicated that adoption of an innovation by the farmers is not an instantaneous act. It is a process that occurs over a period of time and consists of a series of actions.

Let us look at how a farmer does at each stage and passes through one stage to another over a period of time.

1. Awareness Stage

This is the starting stage **wherein the farmer comes to know the existence of the new idea** but he **doesn't have full information about the idea**. At this stage farmer is aware of the idea, but lacks detailed information about it. For instance, the farmers may know SRI cultivation in Rice only the name and may not know what (SRI) is, what it will do and how it will work.

2. Interest Stage

The farmer develops interest in the innovation and **seeks additional information about it** either from extension officer or from fellow farmers or from any source, which he feels credible. **That means the farmer at the interest stage acquires more information about an innovation or idea**. Farmer wants to know, **what the innovation/idea is, how it works** and what its potentialities are.

3. Evaluation Stage

The farmer here makes **mental application of the new idea in the present and anticipated future situations** and **decides whether or not to try it**. The farmer at this stage judges the utility of the innovation. He/she makes an assessment whether the idea is applicable to own situation and if applied what would be the result. For instance, the farmer after hearing to SRI (System of Rice Intensification) cultivation in Rice and acquiring more information at the interest stage what are the components and how they improve yield and save water, he/she mentally judge whether SRI cultivation improves rice yields if adopted.

4. Trial Stage

You are aware that at the first instance, the farmers may not take up any new idea & an innovation right away on a large scale because he/she doesn't want to take risk even though the potential of the idea has been proved. **The farmer actually applies the new idea on a small scale in order to determine its utility or feasibility & applicability in own situation**. Even though, the farmer takes a decision to try the idea by virtue of its plus points or merits, generally the effectiveness of the idea is tested taking this as small scale trials in their own field standards, even though farmers has thought about it for long-time and gathered information concerning it.

5. Adoption Stages

Being satisfied with the performance of the new idea tested on small scale in his own situation, **the farmer uses the new idea continuously on a full scale**. Trial may be considered as the practical evaluation of an innovation. The innovation becomes a part of his normal farming activity. It provides the advantage of the innovation and hence the farmer takes final decision and applies the innovation in a scale appropriate to own situation on a continued basis.

Innovation-Decision Process

According to Rogers : Innovation – decision process is the process through which an individual passes from first knowledge of an innovation, to forming an attitude towards the innovation, to a decision to adopt or reject, to implementation and use of the new idea, and to confirmation of this decision

The Innovation - Decision process is the process through an individual (or other decision making unit) passes (1) from first knowledge of an innovation, (2) to forming an attitude toward the innovation, (3) to a decision to adopt or reject, (4) to implementation of the new idea, and (5) to confirmation of this decision.

This process consists of series of actions and choices over time through which an individual or an organization evaluates a new idea and decides whether or not to incorporate the new idea into the ongoing practice. The innovation-decision is a special type of decision-making; it has certain characteristics not found in other kinds of decision-making situations. In the case of the adoption of an innovation, an individual must choose a new alternative over those previously in existence.

Difference between Adoption and Diffusion Process

	Adoption Process		Diffusion Process
1)	Adoption is a decision to continue full use of innovation.	1)	Diffusion is the process by which an innovation spreads.
2)	Adoption is an individual matter.	2)	Diffusion occurs among persons.
3)	Adoption process is the mental process through which an individual passes from hearing about an innovation to its final adoption.	3)	Diffusion process is the spread of a new idea from its source of invention to its ultimate users or adopters. (Scientist to farmers)
4)	Adoption process deals with adoption of a new idea by one individual.	4)	Diffusion process deals with the spread of new idea in a social system.
5)	The adoption process is one type of decision making process.	5)	Diffusion process is a part of (sub-se) communication process.
6)	There are five stages in adoption process; (a) Awareness, (b) Interest (c) Evaluation, (d) Trial and (e) Adoption	6)	There are four stages in diffusion process; (a) Innovation, (b) Communication, (c) Social System and (d) Overtime
7)	The time an individual takes to pass from the awareness to the adoption stage is called "adoption period".	7)	The time an innovation takes to be adopted by all the members of social system after its introduction is called "diffusion period".
8)	The adoption period is the length of time required for an individual to pass through the adoption process from awareness to adoption.	8)	The diffusion period is measured from the date first individual is aware of the innovation until it has reached complete adoption in a given social system.

Stages in Innovation-Decision process

1. Knowledge Stage

Innovation-decision process begins with knowledge stage, which commences when the farmer is exposed to the innovation's existence and gains some understanding of how it functions.

The innovation-decision process is essentially an information-seeking and information – processing activity in which the individual is motivated to reduce uncertainty about the advantages and disadvantages of an innovation. The individual wishes to understand the innovation, and give meaning to it. A need can motivate an individual to seek information about an innovation and the knowledge of an innovation may develop the need.

2. Persuasion Stage

At the persuasion stage in the innovation-decision process, the individual forms a favourable or unfavourable attitude towards the innovation.

Whereas the mental activity at the knowledge stage was mainly cognitive (or knowing), the main type of thinking at the persuasion stage is affecting (or feeling). Until the individual knows about a new idea, of course, he cannot begin to form an attitude toward it.

At the persuasion stage the individual becomes more psychologically involved with the innovation. Now he actively seeks information about the idea. His personality as well as the norms of his social system may affect where he seeks information, what messages he receives, and how he interprets the information he received. Thus, selective perception is important in determining the receiver's communication behaviour at the attitude formation stage. For it is at the persuasion stage that a general perception of the innovation is developed. Such perceived attributes of an innovation as its relative advantage, compatibility, and complexity are especially important at this stage.

In developing a favourable or unfavourable attitude toward the innovation, the individual may mentally apply the new idea to his present or anticipated future situation before deciding whether or not to try it. This might be thought of as a vicarious trial.

3. Decision Stage

At the decision stage in innovation-decision process, the individual engages in activities which lead to a choice to adopt or reject the innovation.

The individual puts the innovation to a small scale trial in own situation. Considering the relative advantage, risk involved and many factors like availability of market, need for the family etc. the individual takes a decision to adopt or reject the innovation.

Adoption is a decision to make full use of innovation as the best course of action available.

Rejection is a decision not to adopt an innovation. Innovations, which can be divided for trial use, are generally adopted more rapidly. Most farmers who try an innovation then move to an adoption decision, if the innovation has a certain degree of relative advantage.

4. Implementation Stage

Implementation occurs when an individual (or other decision making unit) puts an innovation into use.

Until the implementation stage, the innovation-decision process has been a strictly mental exercise. But implementation involves overt behaviour change, as the new idea is actually put into practice.

At this stage the individual is generally concerned with where to get the innovation, how to use it and what operational problems will be faced and how these could be solved. Implementation may involve changes in management of the enterprise and/or modification in the innovation, to suit more closely to the specific needs of the particular person who adopts it.

5. Confirmation Stage

At the confirmation stage the individual (or some decision making unit) seeks reinforcement of the innovation-decision already made or reverse a previous decision to adopt or reject the innovation if exposed to conflicting message about the innovation.

Most of the researchers indicated that a decision to adopt or reject is not the terminal stage in the innovation-decision process. Human mind is in a dynamic state and an individual constantly evaluates the situation. If the individual perceives that the innovation is consistently giving satisfactory or unsatisfactory results the person may continue to adopt or reject the innovation as the case may be. At the confirmation function the individual seeks reinforcement for the innovation-decision he has made, but he may reverse his previous decision if exposed to conflicting message about the innovation. The confirmation stage continues after the decision to

adopt or reject for an indefinite period in time. Throughout the confirmation function the individual seeks to avoid a state of internal disequilibrium or dissonance or to reduce it if it occurs.

Farmer seeks to accomplish it by changing his knowledge, attitude or actions.

Rejection is decision not to adopt an innovation. This may be of two types, active rejection and passive rejection. When a farmer rejects after adopting the innovation including even its trial is called Active Rejection and simply non- adoption is called Passive Rejection.

Adopter Categories

There are different categories of farmers. According to Rogers (1971), the farmers based on their innovativeness can be classified as

1. Innovators (Venturesome)
2. Early adopters (Respectable)
3. Early majority (Deliberate)
4. Late majority (Skeptical)
5. Laggards (Traditional)

All individuals in a social system do not adopt an innovation at the same time. Rather, they adopt in an ordered time sequence, and they may be classified into adopter categories on the basis of when they first begin using a new idea. In technology transfer programme, it is of great practical utility for the extension workers to identify the individuals who are likely to adopt innovations early and who may lag behind. The adoption of an innovation over time follows a normal, bell-shaped curve when plotted over time on frequency basis.

Characteristics of adopter categories

The detailed information on the characteristics of adopter categories is presented below

1. Innovators: (Venturesome)

- a. Have larger farms.
- b. High net worth and risk capital.
- c. Willing to take risks.
- d. Usually not past middle age
- e. Generally well educated
- f. Have respect and prestige in progressive communities but not in conservative type of communities.
- g. Mentally alert and actively seeking new ideas.
- h. They have many formal and informal contacts outside the immediate locality.
- i. They often by-pass the local extension worker in getting information from the originating sources, and may learn about new things even before he does. They sometimes manage to get samples of seeds or chemicals even before they are released for public use.
- j. They subscribe to many farm magazines and specialised publications.
- k. Other farmers may watch the innovators and know what they are doing but the innovators are not generally named by other farmers as “neighbours and friends” to whom they go for information.

1. Early Adopter: (Respectable)

- a. Younger than those who have a slower adoption rate, but not necessarily younger than the innovators

- b. They are quickest to use tried ideas in their own situations.
- c. Have large farms.
- d. Higher education than those who adopt more slowly.
- e. High income.
- f. They participate more in the social activities of the community.
- g. They also participate more in government programmes.
- h. This group usually furnishes a disproportionate amount of the formal leadership (elected positions) in the community.
- i. They read papers and farm journals and receive more bulletins than people who adopt later.
- j. They may be regarded as community adoption leaders.

3. Early Majority: (Deliberate)

- a. Slightly above average in age, education and farming experience.
- b. They take a few more farm journals and bulletins than the average.
- c. They have medium high social and economic status.
- d. Less active in formal groups than early adopters, but more active than those adopting later.
- e. In many cases, they are not formal leaders in the association
- f. They also attend extension meetings and farm demonstrations.
- g. They are most likely to be informal resources than early adopters and innovators, and so cannot afford to make hasty or poor decisions.
- h. They associate mainly with people of their own community.
- i. They value highly the opinions their neighbours and friends hold about them; for this is their main source of status and prestige.
- j. They are mostly mentioned as “neighbours and friends”
- k. Limited resources

4. Late Majority: (Skeptical)

- a. Adopt new ideas just after the average members.
- b. Those in this group have less education and are older than the early majority.
- c. They participate less in formal groups.
- d. They take fewer leadership roles than the earlier adopters.
- e. They take and read fewer papers, magazines and bulletins, than the early majority.
- f. They do not participate in as many activities outside the community as do people that adopt earlier.

5. Laggards: (Traditional)

- a. Least education.
- b. Oldest.
- c. Participate least in formal organisations, cooperatives and government programmes.
- d. They hardly read farm magazines and bulletins.
- e. Most localite.
- f. Do not have opinion leadership.
- g. Resource-poor people.
- h. Little land holding.
- i. Live in disadvantaged area and having least urban influence.

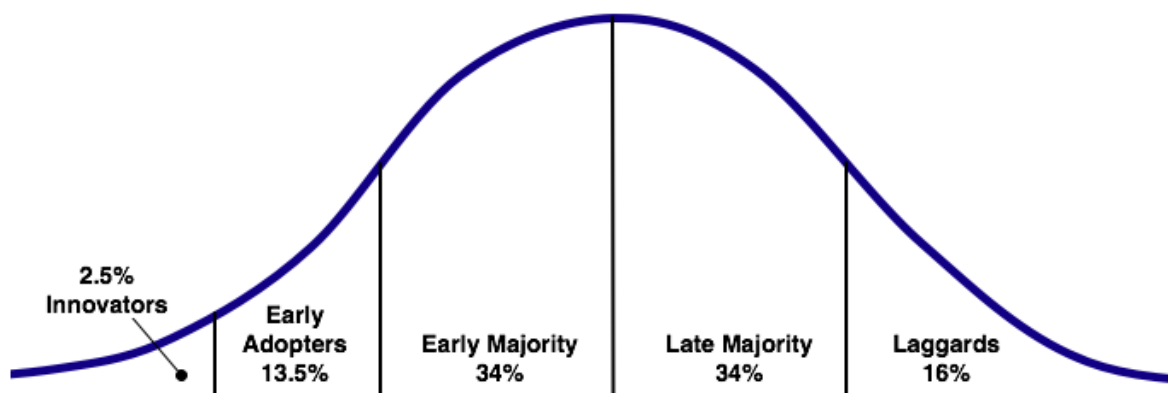


Fig. Adopter categories on the basis of Innovativeness

Factors Influencing Adoption Process

Broadly, the factors influencing the adoption of innovations can be discussed under the following subheads.

I Personal Factors	II Social Factors	III Cultural Factors	IV Situational Factors
1. Age 2. Education 3. Knowledge 4. Psychological Characteristics - Rationality - Mental flexibility - Innovation Proneness	1. Social values 2. Local leadership 3. Social contacts (A) Nature of social contacts (B) Extent of social contacts 4. Social distances	1. Culture 2. Values 3. Attitudes	1. Farm income 2. Farm size 3. Tenure size 4. Sources of farm information used 5. Standard of living

1. Personal

Why some people adopt new ideas and practices more quickly than others relates in part to the characteristics of individual himself.

a. Age:

Elderly farmers seem to be somewhat less inclined to adopt new practices than younger ones. (However, the findings of several Indian studies do not support the existence of a negative relationship between the age and adoption)

b. Education:

More than eight years schooling is almost always associated with higher adoption rates than lesser amounts.

c. Psychological characteristics:

- Exposure to reliable sources of farm information may create a state of rationality which in turn predisposes an individual to the adoption of new practices
- A mentally flexible person has higher adoption rates than one with mental rigidity.
- Some people are found to be more prone to change than others

d. Values and attitudes (cultural characteristics):

- Values found to be positively related to farm practice adoption rates are: a desire by farmers to provide a high school or college education for their children, a high emphasis on science and material comfort, and also wide contacts within and beyond the community.

- ii) A high emphasis on traditionalism, isolationism, and security (e.g., owning farm free of debt) has been found to be negatively associated with adoption of improved practices.

2. Situational

Reasons why farmers adopt farm practices more quickly at one time than another relate to the situation in which they find themselves when alternative course of action becomes known.

I. The nature of the practice: The speed with which adoption will take place is partly dependent on the nature of practice itself.

A) Complexity:

Generally speaking, the more complex a practice and the more change it requires in the existing operations, the more slowly it will be adopted.

The following classification of practices in terms of their complexity roughly represents the decreasing order of speed with which acceptance may be expected to occur.

- i) **A simple change:** A change in materials and equipment only, without a change in techniques or operations (e.g. new variety of seed).
- ii) **Improved practice:** Change in existing operation with or without a change in materials or equipment (e.g., change in rotation of crops)

iii) Innovation

: Change involving new techniques or operations (e.g., contour cropping)

iii) **Change in total enterprise:** e.g., from crop to livestock farming

B) Cost:

Less costly inputs seem to be adopted more rapidly than those, which are more expensive.

C) Net returns:

Those practices which yield the greatest marginal returns per rupee invested, and in the shortest time seem to be adopted most readily.

The above two characteristics viz., cost and net returns are also referred to as “relative advantage” or “profitability”.

D) Compatibility:

It is the degree to which an innovation is consistent with existing values and past experiences of the adopters. An idea that is not compatible with the cultural norms of a social system will not be adopted so rapidly as an idea that is compatible e.g., the lack of compatibility of beef production with cultural values in India.

E) Divisibility (Trialability):

It is the degree to which an innovation may be tried on a limited basis. New ideas that can be tried on a small scale or on the instalment plan will generally be adopted more rapidly than innovations that are indivisible, e.g. new seeds or fertilizers can be tried on a small scale, but new machines cannot be tried so.

F) Communicability (Observability):

It is the degree to which the results of an innovation may be diffused to others. The results of some practices are easily observed (e.g., application of nitrogenous fertilizer to plants), while the results of some innovations are not easily observed (e.g., pre-treatment of seeds, or soil conservation measures).

II. Farm income:

High farm income nearly always is associated with high adoption level.

III. Size of farm:

Size of farm is nearly always positively related to the adoption of new farm practices

IV. Tenure status:

Adoption scores are usually higher for owner cultivators than for tenant cultivators.

V. Sources of Farm information used:

- i) The number of sources used or the number of contacts with information sources is positively related to adoption rates.
- ii) A high positive correlation is particularly evident with the use of such sources as Government agencies
- iii) High dependence on relatives and friends as sources of information is usually negatively associated with the adoption of new farm practice.

3. Social

Community standards and social relationships provide the general framework wherein the process of change occurs, and they account for the differences between one community (or group) and another.

1) Social values:

In some groups and communities, people place a higher value upon material gains and money than they do in others. In some other groups; changes in farming are encouraged and expected, prestige is attached to the adoption of new ideas and techniques. In others, more value is placed upon tradition and little freedom is allowed for the individual to deviate from the group's pattern in adopting innovations. If the adoption of new practices goes contrary to the established customs and traditions of the people, the innovator may be ridiculed or lose prestige.

2) Local Leadership:

The acceptance of change is also influenced by the nature of leadership and control in the group or community. In some communities, none would accept a new idea, unless and until the leader the community is sold on the idea.

3) Social contacts:

The nature and extent of social contact within and outside the community is important in the diffusion of new ideas and techniques.

ICT APPLICATION IN TOT

Internet and World Wide Web have provided an opportunity for the agricultural extension scientists to disseminate the technology, share the research findings and get the farmer feedback in most economic manner. The internet services like WWW, e-mail and face book may help to keep in pace with recent trend in the field. Extension professionals fully equipped with the modern tools help to serve the farming community. World Wide Web (www) is a network of information resources. The digital pages on www are called web sites. The first page of website is called Home page.

The Internet is a network of networks, the international linking of tens of thousands of business, universities, and research organisations with millions of individual users. The Internet is a global electronic community of over 50,000 interconnected computer network, which means more than 50 million people are linked together, computing on what has been aptly termed as the "information super highway". Internet has added a new dimension to our existence by placing within easy reach an overwhelming range of information. It gives each of us the option to be a publisher of our information and views. The Internet offers a wealth of business opportunities. More and more business firms are advertising their services to customers on the Internet. The

Internet is a source of up-to-date information and assistance too, related to business, stock market, education, research, medical advances etc., Many organisations also set up an "Internet". This is a network used on the Internet to communicate and share information across the organisation.

Purposes of Internet

1. Education: Can get additional Information by the students, teachers and scientists. It is a medium for interactive and collaborative learning. Useful for distance education
2. Publishing: All newspapers and newsletters are available on internet.
3. Shopping: E-commerce is possible
4. Advertising: Useful for advertising the products with text, graphics and pictures and video clippings.
5. Financial services: Stock broking and research reports on stocks are available and can be downloaded. The transactions like tele credit card checking, tele banking, tele insurance are taking place
6. The business of governance: Public information useful for every citizen can be kept on the net.
7. Government services can be made available and can provide fast, transparent services through this. E.g., E –seva in AP
8. Career: Career opportunities can be known with the help of net
9. Internet communication: Provides access to all kinds of information available on the latest technology in any field.
10. E-mail: Is the primary communication tool on internet. One can send and receive mails without any geographical barriers. We can send e-mail through websites like rediffmail.com, hotmail.com etc.
11. Lister: It allows group of people with common interest to send messages to each other at no cost.
12. Usenet News group: A newsgroup is worldwide platform for exchanging ideas and information by common minded people. The mail programme is loaded with windows is Outlook Express. It helps use to send, receive and store e mails.

Limitations of internet

1. Requirement of continuous power supply
2. Failure in network
3. Lack of knowledge for the people on use of internet
4. Selecting the required information in the net is difficult from the volumes of information
5. Sometimes it misleads the individual for wrong selection of information
6. Internet services are not available in rural areas hence farmers needs to travel to the urban areas to utilize the facility

Kiosk is a small enclosed structure, often freestanding, open on one side or with a window, used as a booth to access to information in agriculture and allied areas.

1. Video Conferencing

Videoconferencing is effective in delivering education to students in distributed locations. It allows two or more locations to interact in a two-way transmission of audio and video as well as other content through media such as Digital Versatile Disk (DVD), PowerPoint or the Internet. Participants can hear and see each other, and can also see instructional materials that are displayed by the lecturer.

2. Wireless fidelity (Wifi)

"WiFi" stands for "wireless fidelity". The initial proposal for the radio technology's public use was put forth by Michael Marcus in the year 1980, and had to wait for 5 years. Later it was made available in other countries. Commonwealth Scientific and Industrial Research Organization (CSIRO) a research body in Australia filed for the original patents of the 802.11 network technology used in Wi-Fi in the year 1996. Radio waves are used for the working of Wi-Fi technology. The wireless adapter of the computer and the wireless router play an important role in its working. The adapter receives data from the computer in digital form. This data, after its conversion in radio waves is sent to the router by means of an antenna. The router decodes the signal and sends it to the Internet. The process is reversed when information is sent from the Internet to a computer.

3. Geographical Information System (GIS) is a system for capturing, storing, analyzing and managing data and associated attributes, which are spatially referenced to the Earth. The geographical information system is also called as a geographic information system or geospatial information system. It is an information system capable of integrating, storing, editing, analyzing, sharing, and displaying geographically referenced information. In a more generic sense, GIS is a software tool that allows users to create interactive queries, analyze the spatial information, edit data, maps, and present the results of all these operations. GIS technology is becoming essential tool to combine various maps and remote sensing information to generate various models, which are used in real time environment. Geographical information system is the science utilizing the geographic concepts, applications and systems. Geographical Information System (GIS) is the most important and useful system for decision making in Agricultural sector by the functionaries. GIS will help to ascertain the ground level realities with the help of spatial data obtained from various resources. In GIS one can integrate data from various sources such as Remote Sensing Data and Image with that of data of land records and agricultural census. It would be more appropriate to use GIS applications in agro-based enterprise to ascertain the scope of activities and monitoring of activities.

4. Remote sensing (RS) technology has rapidly expanded for the development of various sectors including Agriculture. The remote sensing techniques will continue to be very important factor in the improvement of present system of acquiring agricultural data. The remote sensing provides various platforms for agricultural survey. Satellite imagery has unique ability to provide the actual synoptic views of large area at a time, which is not possible for conventional survey methods and also the process of data acquisition and analysis are very fast through Geographic Information System as compared to the conventional methods. The importance of remote sensing applications to agricultural sector involve land use pattern, crop production, crop yield determination, and crop monitoring.

5. E-governance refers to the use of Information and Communication Technology (ICT), particularly web based applications, to provide access to and deliver information / service to the public, business, other agencies and governmental entities faster, cheaper, easier and more efficient. This in turn enhances relationships, enlarges the overall customer base and improves core business operations through re-examination of internal processes.

SOCIAL MEDIA

1. Facebook: Facebook (sometimes shortened to FB) is a social networking service and website started in February 2004. It was built by Mark Zuckerberg. It is owned by Facebook, Inc. as of September 2012, Facebook has over one billion active users. Users may make a personal profile, add other users as friends, and send messages. Facebook users must register before using the site. The name of the service comes from the name for the book given to students at the start of the school year by some universities in the United States. These books help students get to know each other better. Facebook allows any users who are at least 13 years old to become users of the website. Facebook was started by Mark Zuckerberg with his college roommates and fellow computer science students. The website's membership was only for Harvard students at first. Later it included other colleges in the Boston area, the Ivy League, and Stanford University. It eventually opened for students at other universities. After that, it opened to high school students, and, finally, to anyone aged 13 and over.

2. Twitter: Twitter is an American online news and social networking service on which users post and interact with messages known as "tweets". Tweets were originally restricted to 140 characters, but on November 7, 2017, this limit was doubled to 280 for all languages except Chinese, Japanese, and Korean. Registered users can post, like, and retweet tweets, but unregistered users can only read them. Users access Twitter through its website interface, through Short Message Service (SMS) or its mobile-device application software ("app"). Twitter, Inc. is based in San Francisco, California, and has more than 25 offices around the world. Twitter was created in March 2006 by Jack Dorsey, Noah Glass, Biz Stone, and Evan Williams and launched in July of that year. The service rapidly gained worldwide popularity. In 2012, more than 100 million users posted 340 million tweets a day, and the service handled an average of 1.6 billion search queries per day. In 2013, it was one of the ten most-visited websites and has been described as "the SMS of the Internet". As of 2018, Twitter had more than 321 million monthly active users. Since 2015 Twitter has been a hotbed of debates and news covering politics of the United States. During the 2016 U.S. presidential election, Twitter was the largest source of breaking news on the day, with 40 million election-related tweets sent by 10:00 p.m. (Eastern Time) that day.

3. YouTube: YouTube is an American video-sharing website headquartered in San Bruno, California. Three former PayPal employees—Chad Hurley, Steve Chen, and Jawed Karim—created the service in February 2005. Google bought the site in November 2006 for US\$1.65 billion; YouTube now operates as one of Google's subsidiaries. YouTube allows users to upload, view, rate, share, add to playlists, report, comment on videos, and subscribe to other users. It offers a wide variety of user-generated and corporate media videos. Available content includes video clips, TV show clips, music videos, short and documentary films, audio recordings, movie trailers, live streams, and other content such as video blogging, short original videos, and educational videos. Most of the content on YouTube is uploaded by individuals, but media corporations including CBS, the BBC, Vevo, and Hulu offer some of their material via YouTube as part of the YouTube partnership program. Unregistered users can only watch videos on the site, while registered users are permitted to upload an unlimited number of videos and add comments to videos. Videos deemed potentially inappropriate are available only to registered users affirming themselves to be at least 18 years old.

Media mix strategies

A media mix is the combination of communication channels your business can use to meet its marketing objectives. Typically, these include newspapers, radio, television, billboards, websites, email, direct mail, the Internet and social media, such as Facebook or Twitter. Combining these channels in a media mix enables you to communicate in the most effective way with different types of customers and prospects at different stages of the purchase decision, according to Entrepreneur.

Factors affecting in use / choice/ combination of Medias

For an effective use of media, it is not enough to know these Medias and their techniques. What is more important is the appropriate selection of a media or combination of Medias for a particular situation. In fact, when a farmer is exposed to a new idea several times by different Medias or a combination of Medias, he is likely to accept it more quickly. There are many factors, which affect selection and use of Medias. A proper understanding of their selection for a particular type of work is necessary.

1. Audience:

- Size of audience
- Ability of the audience
- Age of the audience
- Level of modernization of the audience
- Familiarity of the audience with methods

2. Communicator:

- Ability to use various methods
- Skill of communication
- Knowledge of the communicator
- Interest attitude and dedication of the communicator

3. Objectives of the communication
4. Subject matter
5. Stage of the extension work
6. Size of extension staff
7. Availability of communication media
9. Communicator's familiarity
10. Stages of the adoption process
 - Awareness stage: Mass contacts
 - Interest stage: Personal contact methods of the teaching.
 - Evaluation stage: Result demonstration, personal contacts.
 - Trail stage: Personal contacts, visit of successful farmers.
 - Final adoption stage: Personal contact methods.

11. Availability of time

Social media is powerful. A recent study about how farmers use media found that 42% of farmers who use Facebook and Twitter are using it every day. Whether sharing personal stories or using the sites as news sources, farmers are making their presence known online. YouTube is the most popular social media platform for agriculture professionals.

READING SKILLS

Reading skills are extremely important as they improve one's ability to communicate effectively. They are useful for immediate accomplishment like keeping up to date information, improving writing ability. In fact, proficiency in reading is a prerequisite to good writing ability. But reading alone will not help you unless you develop ability to comprehend what you have read. Listening and reading are strictly individual traits and are often taken for granted. We can pretend to read and listen which is not the case with speaking and writing. We may be hearing a speech but not listening (with mind) it is as much as we may be seeing a page of book but not reading it. What one effectively listens and reads becomes a valuable raw material for effective speaking and writing.

Reading is a process:

It is a visual process: Eye movement, eye span, and perception span.

It is a brain process: Word resources (or) vocabulary, background knowledge, general education etc.

Defining reading:

- Means learning to pronounce words.
- Learning to identify words and get their meaning.
- Learning to bring meaning to a text in order to get meaning from it.

An average reader reads 250 words/minute, a very good reader reads 500-600 words/minute and an exceptional reader reads 1000 or more words/minute.

Good reading depends upon you,

- Your sharpness of your thinking facilities
- Your ability to remember and retain what you read
- Your word power.

- For effective reading: you have to read twice
- First a quick reading to follow author's pattern of thinking and organization of thoughts and to get to
- Know the general meaning (overview).
- In the second reading, you get to know the particular details (what you are looking for). You can understand details more effectively and remember them more easily once you have grasped the central theme. This approach is very useful to study and subject.

Comprehension is the main aim of reading. Rapid perception and thinking help good comprehension. Mind can also be trained for aggressive comprehension. Your word vocabulary has to be simultaneously increased. (Read regularly "It pays to enrich your word power" sector in readers digest).

One of the best tools for a rapid, effective reading is skimming. But it depends upon the purpose and also whether the material before you lends itself to skimming.

Reading skills enable:

1. To read the written form as meaningful language
2. Read anything fluently.

For developing reading skills and accomplishing success in reading are listed below.

1. Objectives of reading should be clear in mind. Normally people read things in which they are interested.
2. Use the technique of skimming which means reading for major ideas and not each word while scanning the material one should continue a silent communication with the author of the material i.e. responding to the materials is one's means of understanding the author's concepts.
3. Take brief notes along with reading to remember what has been read.
4. One should read critically and then write down his own views related to the concepts. In conclusion, some tips for faster and better reading:

In conclusion, some tips for faster and better reading:

- Make a quick survey of headings, table of contents, introductory , graphs, and illustrations, and the preface. (It will give an insight about the contents and nature of the material. It also helps deciding whether to read details)
- Learn to read by PARAGRAPHS. A paragraph generally contains one leading idea around which supporting details are arranged. Find this idea rapidly.
- Reading the "main idea" in each paragraph may be sufficient.
- If details are important, reading proficiency can be increased by organizing subsidiary ideas and facts.
- Watch for the directional word.
- Real fast reader knows how to glean the essential ideas by SKIMMING.
- These readers generally have a comprehensive knowledge of language and subject matter and know how to synthesize. They seek really essential or specific ideas or facts.

A word of caution:

- Best readers cannot read everything with the same speed.
- Reading speed depends upon reading objectives. Eg: Novels, Fiction, Economic theory.

- Motivation to read determines reading speed. Eg: Sports news by sports lover.
- Psychological barriers that impedes effective reading.

WRITING SKILLS

Any written document is a verbal structure consisting of words, sentences, phrases, clauses which form paragraphs and text. To get an effective writing style, it is not that much easy and It is very difficult requires rigorous practice. The organizations are also unable to realize what heavy price they are paying because of miscommunication.

Good writing is writing that works. It is clear at 1st reading it demands no further explanation. For most of the professionals, writing is not something that comes easily. The present age of ICT it seems unnatural and old fashioned to use written communication yet it has its own place in organizational communication. Effective writing is a skill which can be learnt, but people generally complain of the following:

- I lack confidence.
- I know what I want to say, but I cannot put it down.
- I waffle.
- I don't have time to improve.

Choice of words & phrases:

1. Original sentence: Fuel tank deformation was present. Revised sentence: Fuel take was deformed.
2. Original sentence: Accident frequency depends on the adequacy of road seen visibility.
3. Revised sentence: Accident frequency depends on how well the road can be seen.

Prefer specific to general words:

1. Original sentence: The Company has brought out 40 publications this year.
2. Revised sentence: 'Books' replaced at publications.
3. Original sentence: She has developed a new gas lighter.
4. Revised sentence: She has designed a new gas lighter.

Prefer to be objective than subjective

- Ex: (1) Prepare a formulation - formulate
(2) Tender resignation - resigned

ACTIVE-PASSIVE VOICE

1. Decision was made by supervisor to call in the workers for overtime.
2. The supervisor decided to call in the workers for overtime.

To be an effective writer, a profession should cultivate certain habits, attitudes and qualities of mind. Some of them are:

- Visualize what you want/wish to say. If you are clear about what to communicate words would automatically follow to express it clear thinking and clear writing go together.
- Prepare first draft.
- Stop when you finished saying what you wanted to say. Remember professional writes to express but not to impress.
- Revise the draft carefully by editing.
- Approach the problem a scientist's objectivity, detachment and passion for both.
- Don't elaborate point unnecessarily to make your writing crisp and sharp.

A systematic approach for effective writing:

Any writing should involve following stages:

1. Preparation & planning
2. Writing
3. Checking

1. Preparation & planning

The best way to prepare for writing is to answer series of questions – 5W's and 1 H. They are why, who, what, where, when and how. This helps to clarify certain issues before writing. Instead of preparing list of contents to be covered in document, it is better to follow pattern plans. Pattern plans are increasingly popular for organization of information. It allows to access info through associates as well as logical connections. Following are steps to develop pattern plan.

1. Take plain sheet of paper and draw a circle in middle.
2. Write down subject (title) or picture in the circle.
3. Write down any idea connected with subject omits nothing.
4. Highlight the key ideas using different colours.
5. Group info around these key ideas using branches and twinges. Add and edit items.
6. Continue the process until pattern plan is complete. Now list key ideas as headings in logical sequence.

Pattern plans harness creativity and link logically. The advantages of pattern plans are:

- **Rapidity:** More ideas in shortest time.
- **Completeness:** We can get whole picture of the subject at a glance.
- **Efficiency:** Gather and structure material simultaneously.
- **Individuality:** It is our record of thinking. If it makes sense to us, it is much likely to make sense to reader.

2. WRITING: Produce the first draft fast, write as you speak. It is not time to think but to put words flow on to the page.

3. CHECKING: Follow 10 points plan for checking

1. **Paragraphs:** Page should not have less than two paragraph breaks. Use short paragraphs, isolate action points. Use sub-heading and be consistent in layout. Open each paragraph with topic sentence i.e. it is short summarizing. Use link words and phrases to guide the reader from one paragraph to another. Ex: However, moreover, as a result, in addition, etc.
2. **Sentences:** Short sentences are easier to read than long ones. Average length is 17 words per sentence, 25 and above is difficult to understand.
3. **Subject and verb:** Each sentence should have subject and verb. Verb must be finite having tense.
4. **Sentence land scope:** Put important ideas at the beginning or end of sentence as attention will be more. Ideas buried in middle will risk being lost. Break long sentences to chunks of 5-10 words.
5. **Passive-active verbs:** Beware of writing impersonally. Use of passive voice lacks personal touch. Always use active voice.
6. **Adjectives and adverbs:** Keep or use adjectives and adverbs which are absolutely necessary.
7. **Accuracy:** Use of right word for the right expression or action. Use jargon in its rightful place.
8. **Brevity:** Use short words; eliminate clinches. Ex: As matter of fact, as such, by and large etc. and watch out for tautology – why to say same thing twice. Eg: True facts are, enclose herewith, and declined to accept.
9. **Clarity:** Clarity is hallmark of plain English/any language. The text written must leave no room for ambiguity. Avoid vague phrase, loaded words; replace abstract nouns with concrete nouns.

- 10. Spelling and Punctuations:** Spelling matters as it contributes to our professional and public image. Do not use words unfamiliar to you, always use simpler, shorter words, use dictionary for correct usage of word. Beware of the spell checker. Use thesaurus to improve vocabulary. Punctuation provides expression and voice to words. Less punctuation is better.

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LISTENING SKILLS

Listening: Listening is a process of receiving, interpreting and reacting to the messages received from the communication sender. Listening is a process involving awareness, reception, and perception.

MISCONCEPTIONS/MYTHS ABOUT LISTENING:

1. Listening is the same thing as hearing:

Listening is not an automatic process. Listening is different from hearing. In hearing, the sound waves strike the eardrum causing vibrations. These are transmitted to the brain. Listening occurs only when the brain swings into action by reconstructing these electronic impulses by giving meaning to the sounds. True listening is a dynamic process. It involves more than the passive act of hearing. Hearing is with ears, but listening is with mind.

2. All listeners receive the same message:

If this were so, why some people will sleep or not enjoy the speech/presentation/lecture. All listeners do not receive the same message in a uniform manner. Listening is a very demanding activity. It demands not only full attention but also proactive interest in what the speaker is talking about. This may not be always easy for all listeners.

3. Good readers are good listeners:

Listening improves with age and Listening skills are difficult to learn. The researchers found that shortly after a 10-minute oral presentation the average listener will have retained only 50% of what was said and after 48 hrs they are likely to remember only 10%. If you want to be a more effective listener then you must not only open the lines of communication and relax but you must compel others to do the same. You only hear with your ears (which are always open), but listen with your mind.

4. Two ears is a blessing:

Most successful leaders and managers LISTEN. Many qualities can take you to the pinnacle of your profession, but what can “keep” you there is effective listening. “The better you listen, the luckier you get,” says KEVIN J. MURPHY, a U.S. management consultant. According to him, listening is an accurate perception of what is being communicated and an open mind is therefore the key to communication. We are blessed with two ears and one mouth.

The most common complaint is “He (or she) doesn’t listen to me.” Whether it is officer to subordinate or subordinate to officer, all have the same complaint. We seldom listen half of what is said and we may not be fully attentive to the other half. Hearing is momentary, either you get the message and remember it, or it is gone forever.

5. Distortions in listening:

The exercise that you have participated in a game where one person whispers two or three sentences to the next person standing in a line, in the end the message barely resembles the original

thought. It produces much fun and enjoyment among participants besides being an effective learning lesson. Not listening properly can result in a disaster. A survey carried out amongst top executives of United States attending a seminar on listening had three typical answers: “Frankly, I had never thought of listening as an important subject by itself”, “Now I realise that many of the troubles in my company have resulted from someone not hearing something or getting it in a distorted way”, “We seem to have inadvertently overlooked listening as a facet of communication. It is the most important link but obviously the weakest one”.

6. Listening is least taught:

Perhaps the biggest oversight has been the least attention paid to listening in our classroom instructions. Our primary attention has been on reading and writing. Very little emphasis is paid on speaking and almost no attention to skills of listening. This is strange because there is so much lecturing in colleges and schools. The only training listening has been in the form of admonitions or commands: “Listen” or “Listen carefully.”

7. The two-way communication:

Even in countries like United Kingdom and United States of America, teaching listening skills has assumed significance only in the last four or five decades. In India such a realization has yet to take shape although many multinational and progressive companies have recently started training programmes in listening skills. As LEEIACocca, Chairman and CEO, Chrysler Corporation in his autobiography says, “Listening is one skill that can make the difference between a mediocre company and a good company.” Globalisation, market competition and the advent of faster electronic and computer techniques have made it imperative that we widely spread the message of effective communication, especially listening skills, in schools, colleges, universities and all professional sectors including government offices. The art of listening can be learnt and taught for all age groups, what is needed is practice and will.

TYPES OF LISTENING

1. **Ignoring:** Completely not listening to others.
2. **Pretending:** Yeah! Right, uh-huh are some of the expressions of those who practice pretending.
3. **Fake Listening:** Many listeners mistake silence for listening. They steadfastly fix their eyes on the speaker and try to project themselves as good listeners. In fact they miss many important points.
4. **Marginal Listening:** A poor listener is a marginal listener. Day dreamers, poor listening habits, wandering attention and avoiding understanding of complex points by finding escape routes are the characteristics of marginal listeners.
5. **Evaluate Listening:** This traps the listener into the temptation of passing hasty judgements or unfounded evaluations about the speaker.
6. **Selective Listening:** Hearing only certain part of the speech/conversation etc, and think that is important to them.
7. **Attentive Listening:** Paying attention and focusing energy on the words that are being said. It is a process to observe and understand what is said and to assimilate the viewpoint of the speaker. Listening to this type is more useful in solving complex problems.
8. **Empathic Listening or Active Listening:** This is the highest form of listening. This is listening with intent to understand how they feel. This type of listeners practices a lot of mental paraphrasing.
9. **Listening for success:**

The problems are almost the same in a one-to-one conversation particularly when the other side is your superior and group listening. Here your self-confidence, integrity, and character will play a significant role. Many a times people do not talk to you for getting solution to their problems, they want an empathetic ear. Psychiatrists make their living listening and helping patients feel better by just lending a friendly ear.

In conclusion, what we urgent need is awareness about the huge benefits of effective listening amongst all categories of people: students-teachers, children-parents civil servants-citizens, superiors-subordinates. All of us, irrespective of age and status can improve our aural skills. People who listen will have a much better chance for success.

Developing listening skills are very important for various reasons. Here are some of the benefits you get out of becoming a good listener.

Benefits of being a good listener:

- When you listen to other person with full attention, it shows that you are giving respect to the person.
By giving the person respect, you gain his respect and love.
- The other guy in turn will listen carefully to what you have got to say.
- Listening skills will help you in knowing more about the person which can be helpful in your professional life as well as personal like.
- By knowing more about the other person, you increase your chances of making friends with him/her.
- You endear yourself in their eyes.
- You can improve relationships with people by being a good and sympathetic listener to their concerns and problems.
- Listening skills help in improving conversation skills, and you can avoid many confusions, misunderstandings and conflicts if only you develop the willingness to lend more attentive ears to the speaker.

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Presentation skills

Presentation is a speech that is usually given in a formal setup - business, technical, professional or scientific environment. Something set forth to an audience for the attention of the mind. An effective presentation creates a change in the audience; they become more informed or gain a better understanding of a particular subject. A good presentation is a kind of communication between the speaker and the audience.

Presentations are an important way of communicating ideas and information to a group. Presentation carries the speaker's personality better and allows immediate interaction between all participants.

Why Presentation?

- To teach/train
- To gather opinions
- To publicize an idea
- To share findings of research
- To highlight a problem (and to seek a solution)
- To pass on information
- To entertain

- To motivate

Presentation Formats

- Providing Information
- Teaching a skill
- Reporting Progress
- Selling a product, Service or Strategy
- Obtaining a Decision
- Solving a Problem

In order to communicate with your audience, you need to consider the following points:

1. Content: It contains information that people need. The presenter should assess how much information the audience can absorb.

2. Structure: It has a logical beginning, middle and end. It must be sequenced and paced so that the audience can understand it. The presenter must be careful not to lose the audience when wandering from the main point of the presentation.

An Outline for Presentations:

Introduction

- What? Overview of the presentation
- Why? Purpose of the presentation (why the subject is important)
- How? How will you deliver your presentation, what are the expectations of the audience from it?
- Who? If more than one person is presenting, provide introductions and indicate roles (don't expect audience to memorize it)

Body

- The following list suggests alternative formats for presenting information: multiple formats can be used within the presentation:
- Rhetorical – questions & answers
- Logical progression – indicate steps e.g. A then B then C
- Time series – order information from beginning to end, earlier to later etc.
- Compare and contrast – use the same structure to compare different events individuals or situations
- Problems and solutions – don't present problems without working toward some recommended solutions
- Simple to complex – use successive building blocks to communicate complex process or concepts
- Deductive reasoning – moving from general principles or values to specific applications or examples
- Inductive reasoning – using specific applications/examples to reach general principles or conclusions

3. Conclusion

Review, highlight and emphasize key points, benefits and recommendations. Draw conclusions

—

What are we? What does all of this mean? What's the next step?

A Checklist for Presentation

You owe your audience, so creating an effective presentation takes planning and practice. Following are the tips to deliver an effective presentation:

1. Start preparing early: don't wait until the last few days to prepare
 - Don't wait for the last moment
 - Practice your entire presentation
 - Try to practice it before a group of colleagues or friends
2. Think about your audience
 - Who are they and why are they gathered?
 - What are their interests?
 - What do they know? What do they want to know? What is worth their time?
3. As an audience member, think about these questions:
 - Why should I pay attention to the presenter? And when can I think about more interesting things?
 - Why should I care about these issues?
 - I agree with the significance of the topic, but how is the presenter justifying his ideas?
 - Now that I am convinced, what does the presenter want from me?
4. Be clear about your purpose
 - Are you informing or persuading?
 - Tell them what you are going to do, tell them what you told them
 - What do you want the audience to know, feel or believe afterwards?
5. Use an effective introduction
 - Orient the audience, explain why it's important and set the tone
 - Establish a relationship between the speaker and the audience, establish credibility
 - Avoid weak introduction such as apologizes, jokes, rhetorical questions
6. Organize your presentation clearly and simply
 - Prioritize topics and allocate time accordingly
 - Stick to only 3 5 points
 - Have a well thought out pattern (examples are problem/solution, chronological, causes and effect, topical); use transitions to move smoothly from one point to the next.
7. Use supporting materials to flesh out main points
 - Use examples, statistics, expert opinion etc.
8. Compose for the ears, not for the eyes
 - Use simple words, simple sentences, markers, repetition, images, personal, language etc.
9. Create an effective conclusion
 - Summarize, set final image, provide closure; don't trail off, don't use trite phrases
 - Don't just present data or summarized results and leave audience to draw its own conclusions
 - You have had much more time to work with your information than your audience; share your insight and understanding and tell them what you have concluded from your work
10. Sound spontaneous, conversational, and enthusiastic
 - Use key phrases in your notes, so you don't have to read, use the overhead instead of notes
 - Vary volume, don't be afraid of silence, and don't use fillers like "ummm....Aahmm"
 - Practice, practice and practice

11. Use body language effectively
 - Relaxed gestures, eye contact, don't play with a pen or pointer
 - Don't block visual aids
12. Use visual aids to enhance the message
 - Use visual aids to reinforce and clarify, not overwhelm
 - Keep visual aids uncluttered, use titles to guide the audience
13. Analyze the environment
 - Note the size of the room, placement of chairs, time of day, temperature, distractions
 - Check audio visual equipment ahead of time

Making the Presentation Delivery

- Speak clearly. Don't shout or whisper - judge the acoustics of the room.
- Don't rush, or talk deliberately slowly. Be natural - although not conversational.
- Deliberately pause at key points - this has the effect of emphasizing the importance of a particular point you are making.
- Avoid jokes - always disastrous unless you are a natural expert.
- To make the presentation interesting, change your delivery, but not too obviously. e.g.: speed, pitch of voice.
- Use your hands to emphasize points but don't indulge in too much hand waving.
- People can, over a period of time, envelop irritating habits. Ask colleagues occasionally what they think of your style.
- Look at the audience as much as possible, but don't fix on one individual - it can be intimidating.
- Pitch our presentation towards the back of the audience, especially in larger rooms.
- Don't face the display screen behind you and talk to it. Other annoying habits include: Standing in a position where you obscure the screen. In fact, positively check for anyone in the audience who may be disadvantaged and try to accommodate them.

Presentation Skills - Some Practice Tips:

Practicing these exercises will make presentation more natural.

- **Posture** -- Practice standing in the correct posture [feet, knees, hips, shoulders all in a straight line with your arms at your sides] while standing on lifts, standing in queues, waiting at the cash machine, on a coffee break, etc.
- **Movement** -- Practice movement on your feet at home. Cut faces out of magazines and tape or pin them to chairs and sofas. Speaking to one "person" at a time, look first, walk over and stand still for 3 or 4 sentences while speaking, then look at someone else, and repeat the process.
- **Gestures** -- Start practicing the use of gestures for description and/or emphasis by first becoming more aware of your own natural gestures. Do you gesture while on telephone? Do you gesture while talking to a friend, colleague, or family member? By increasing your awareness of what you do with your arms and hands in every day conversations, you will be able to transfer these gestures into all speaking situations.
- **Facial Animation** -- Appropriate facial expressions usually coincide with gestures. If you tend to look overly serious during presentations, using more gestures will help liven up things. Also practice making a variety of facial gestures while speaking in a mirror or driving in the car.

- **Voice** - For Volume and Variety: For sufficient volume, become more aware of breathing deeply from your diaphragm. Lie on the floor with a book placed just above your belt or waist. Yawn several times. This is what breathing from the diaphragm should feel like. Breathe in slowly to the count of 10 watching your stomach expand and then exhale slowly expelling all the air.
- For vocal variety practice, try reading children's books aloud. Your voice will naturally animate with the story. Record your voice and listen to it resonate in your head for higher vocal tones, in your throat for the midrange and deep in your chest for lower vocal tones. Using more gestures will also help to naturally animate your voice.
- **Pause and Pace** - To help eliminate clutter words and use the right, controlled pace, try playing back your voice mail messages before sending them to the recipient and evaluate yourself. Listen for short sentences that end without clutter and "over-connectors" such as: and, but, and so, and rate your pace.
- **Eye Contact** -- Place three to four small Post-It Notes randomly around your workspace. These will be your "eye targets." Whenever you're on the phone, speak one short sentence while looking at the first Post-It Note. After finishing the sentence, pause. Then move on to the next Post-it Note and repeat. This will help you to maintain eye contact with one person at a time while completing a thought or sentence, and eliminate clutter words.

Dos and Don'ts of Presentation

Dos

- Lots of background research. Even if the information is not used in the presentation, it is useful to have as much knowledge as possible for the discussion and audience questions. It will assist your confidence too.
- Be organized - prepare in plenty of time.
- Structure your presentation.
- Focus on the question set.
- Obtain material from a wide range of sources.
- Practice your presentation.
- Use note cards.
- Speak clearly.

Don'ts

- Leave research and preparation until the last minute.
- Rely on one source of information.
- Make it up.
- Just hope that it will come together on the day without preparation and practice.
- Have no notes to rely on if you get stuck.
- Worry too much it's not as bad as it seems.
- Mumble.
- Read from script.
- Rush the presentation by speaking too fast.
- Make eye contact with your audience.

Research indicates that we tend to base our judgment of other people on three main characteristics:

- Verbal content: 7%
- Vocal Intensity: 38%
- Body Language: 55%

This shows that more than 90% of your public image depends on how you look and sound rather than the content that you deliver.

- There is no mystery about making a good presentation
- It is all about finding out how to do it right.
- It is a skill, and like any other skill it can be learnt.
- It is a skill, which can be mastered with little time and effort.
- The most brilliant speech will ultimately depend for its success on presentation style of the speaker and not on the contents of the speech itself.

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INTERPERSONAL COMMUNICATION SKILLS

Definition:- It is the process we use to build relationships with others through communication by understanding the other's situation, communicating in the right manner, influencing them to listen or take action as needed.

It is the learned behaviour that can be improved through knowledge, practice, feedback and reflection. It can include all aspects of communication such as listening, persuading, ascertaining, non-verbal communication.

Success of an extension worker will largely depend upon an effective communication which in turn depends upon the **interpersonal communication skills such as** empathy, listening, positive attitudes, perception, presentation skills, written communication skills etc.,

1. Empathy

Empathy Sensitivity is probably the most important factor in successful communication. Sensitivity in a nutshell is the ability to see things from the other person's point of view. Empathy, which means listening with understanding, is the modern expression for the same idea. People have feelings, opinions, fears and prejudices. Empathize with them and show concern and respect. People like to be appreciated and made to feel important.

2. Listening

Have you ever been at a meeting when nobody seems to listen to anybody else? Of course, you have. The meeting consists of a series of monologues; the people are not really listening to each other but thinking and planning what to say as soon as the other person pauses for a breath. Experts maintain that the best way to make friends is to become an attentive listener. Many people fail to make a favorable impression on others, simply because they do not take the trouble to listen. Communication is a two-way process and listening is every important aspect of it; somebody once said that the reason we have two ears and only one mouth is because we should listen twice as much as we talk. Apart from anything else, it is just plain good manners to listen.

3. Positive attitude:

Develop a positive attitude towards others. Don't close your mind to other people's opinions and viewpoints. Show respect for their opinions. Don't consider yourself too good to learn from others. Pride is one of the seven deadly sins. Listen, you may learn something.

4. Creativity development skills

- **Creative:** Creative is being original or new form by new process
- **Thinking:** The process of through to consider, judge, believe or to remember
- **Creativity:** Creativity is defined as the tendency to generate or recognize ideas, alternatives or possibilities that may be useful in solving problems, communicating with others, and entertaining ourselves and others
- **True creativity:** It is a capacity to think, to admire beauty, to write poetry, painting, etc.
- **Creative thinking:** It is a series of mental actions which produce change and development of thought. It is specific thought process which improve the ability to be imagination. It is a mental skill which is to say a transverse ability that can be applied to different field from art and science to business and technology.

Seven habits of successful creative thinkers

1. Prepare the ground
2. Plant seeds creativity
3. Live in the questions
4. Feed your brain : collection of resources
5. Experiment and explore: Dissemination of information or transfer of technology
6. Replenish your creative stock.
7. The secret to liberty to your creativity

Agricultural Journalism Journalism

Journalism is a form of communication based on asking and answering the questions who? What? How? Where? and Why?. Journalism is anything that contributes in some way in gathering, selecting, processing of news and current affairs for the press, radio, television, film, cable, internet, etc. Journalism is systematic process of gathering, writing, interpreting, processing and disseminating public opinion, public information and public entertainment for publication in newspapers, magazines and broadcast.

Journalism is defined as:

- A systematic and reliable gathering dissemination of information for public consumption.
- Written form of journalism *i.e.* Printed matters, photojournalism and broadcast journalism are some of the types of journalism.

Agricultural Journalism

Agricultural journalism is otherwise known as Farm journalism. It is a specialized branch of journalism. It is journalism as applied to agriculture. It is a practice of journalism applied for the extension of farm information.

Agricultural Journalism is the task of gathering, writing, editing and publishing or

disseminating agricultural information, scientific facts, technologies, events or news through newspapers, magazines, radio and television or by any media of communication.

It is the timely reporting and editing with words and photography of agricultural news and information for newspaper, magazine, radio and television.

Farm journalism is playing a great role in communication with farm people, homemakers, etc. Newspaper stories, magazine article, leaflets, pamphlets, bulletins, circular letters, wall newspapers and radio scripts are increasingly being written by the extension staff and read or listened to. The written work is helping to make advisory work with farm people more interesting.

Who is a Journalist?

A professional journalist is a person who works regularly for the scores of news papers, magazines, journals and house organs and those who write copy or edit script for Radio and or Television.

Role of a Journalist

1. To inform the people
2. To influence the people
3. To entertain the people

Qualities of a Journalist

To play his role successfully, the journalist should possess the following qualities.

1. He should have various skills like
 - Verbal skill
 - Writing skill
 - Reading skill
 - Listening skill
 - Skill of selecting proper message as per the need and interest
 - Skill of giving treatment to the message
 - Skill of using different channels
 - Skill of understanding his audience
 - Skill of collecting evidences of results
2. He should have knowledge about
 - His major objectives
 - His targeted audience
 - His message to be conveyed
 - Channel to be used
 - Treatment of message to make it easy to understand and acceptable
 - His own abilities and weakness as a journalist
3. He should have interest in
 - Bringing change in targeted audience
 - Bringing fruitful results through different media
 - Using various media based on situations
4. He should prepare
 - Complete sketch of message

- Plan of evaluating message
 - Various information materials to give treatment to his message
5. He should have proper attending behaviour like
 - Use of local language
 - Use of simple words and small sentences
 - What to avoid and what not to void
 - Friendly language
 - Enough confidence to handle all the elements of communication
 6. He should have empathy to understand audience's point of view.
 7. He should have positive attitude to incorporate above all qualities to create ideal situation.

Importance of Journalism:

1. The aim of journalism is to bring a change in behaviour of people by educating them.
2. Journalism is a communication technology through written words which help in effective communication.
3. To retain and remember for a long period one needs written. It is memory bank.
4. It has more credibility over spoken words.

Importance of Agricultural Journalism

1. Agricultural journalism satisfies the curiosity and desire for agriculture information of farming community.
2. Provides information input to the farming community which is basic for agricultural development
3. It increase both availability and transmission of agricultural information by using mass media
4. Helps convey the agriculture messages in understandable manner
5. Helps to communicate the message at proper time and well before the season
6. Develops scientific attitude of farmers by publishing scientific reports pertaining to agriculture
7. Develops confidence of farmers by publishing success stories of successful farmers
8. Uses journalistic techniques that encourage and motivate the farmers to follow tips given by scientists or extension personnel.
9. Helps to increase rate of adoption of innovation by publishing follow up stories.

Role of Agricultural Journalism in Agricultural Development

1. Agricultural journalism plays pivotal role to create awareness about new development in agriculture and overcome ignorance of the farming community.
2. Narrow down the gap exists between the level of research finding available at agricultural research stations and the actual adoption of those by the farm people.
3. Provides continue flow of superior scientific technology from agricultural research stations to the farming community through different media within the shortest possible period.
4. Play important role in connecting three important systems **viz.**, research, extension and client system for participatory technology generation and dissemination.

5. Facilitating role in effective communication of new agricultural knowledge in such a way that it results effective use and adoption.
6. Plays role in agricultural information feed forward and feed back mechanism.

Scope / Advantage of Agricultural Journalism

- Increases education level among the farming community
- Provides timely agricultural information to farmers and extension personnel
- Decreases disparities among the farmers
- Enhance food security and sufficiency
- Enhance socio-economic status of farmers
- Enhance empowerment of farmers
- Enhance employment generation
- Enhance development of the nation

Problems of Agriculture Journalism in India

There are many problems in agricultural journalism. These are mentioned as under.

1. Circulation is very low.
2. Political over emphasis and bias: It is high time to reduce political over emphasis and increase educational information.
3. Ignorance of reporters about agriculture.
4. Distortion and suppression of news: If it does not suits government, political parties or big agencies. Distortion may be because of ignorance alone.
5. Pressure from advertisers: Industrialist, land lord, government etc.
6. Urban biased: They share urban belief prejudices and blind spot. It is hard to bring news from rural area as compared to urban area. Rural news is not sectional accord to them.
7. Lack of agricultural knowledge: The news given by agricultural university are published as such without judging validity. But now certain news agencies are having agriculture corresponding.
8. Lack of scientific writers: Agricultural universities and state departments can play the role for encouraging scientific writers. However, scientists do not write popular articles because of lack of time and little interest to spare time for such publication.
9. Reader's interest not always served: 'Why' aspect of the news is not fully satisfied. Contents of agriculture news are generally not relevant, specific and non-motivating. Therefore farmers do not show their interest in reading, watching news.
10. Economic factors: Publishing the newspaper and magazines is costly affair. They have to depend on government, agencies, etc. Private newspaper in agriculture-government is not coming up to promote them so they depend on private funding.
11. Lack of sources of news: Weather Department, Marketing Department, Agricultural University are only sources.
12. Lack of linkages between different sources of news.
13. Lack of government support.
14. Written media has not been successful in rural area for two reason *i.e.*, low literacy rate and

low purchasing power of rural people.

Types of Journalism

1. Spoken
2. Written
3. Pictorial

Types of Journalism:

1. Advocacy journalism
 - Initiated by USA in early 19th century
 - Advocacy journalism is a genre of journalism that intentionally and transparently adopts a non-objective viewpoint, usually for some social or political purpose.
 - Because it is intended to be factual, it is distinguished from propaganda.
 - It is publicity oriented
 - Here, journalists supports any issue in the public form
2. Interpretative journalism or Reporting
 - Interpretative or explanation oriented reporting
 - The farm reporters explain Why, How, What, etc.
 - Here, farm reporter is not only writer of news but he is also orator
 - He publishes news in such a way the readers are motivated and enthused to adopt any new technology that he writes about
3. Development journalism in agriculture
 - Separate school of thought which increases the sense of people
 - It focuses on protection of farming community and their development
 - It creates sense of improvement in the people for their own development
4. Convergence journalism
 - A form of journalism which combines different forms of journalism such as print, photographic and video into one piece or group of pieces.
 - Convergence journalism can be found in the sites of CNN and many other news sites
5. Ambush journalism
 - Refers to aggressive tactics practiced by journalists to suddenly confront and question people who otherwise do not wish to speak to a journalist
 - This particularly has been applied by television journalists.

Some other forms include:

1. Access journalism : journalists who self-censor and voluntarily cease speaking about issues that might embarrass their hosts, guests, or powerful politicians or businesspersons.
2. Broadcast journalism : written or spoken journalism for radio or television.
3. Citizen journalism: participatory journalism.

4. Data journalism : the practice of finding stories in numbers and using numbers to tell stories. Data journalists may use data to support their reporting. They may also report about uses and misuses of data. The US news organization ProPublica is known as a pioneer of data journalism.
5. Drone journalism : use of drones to capture journalistic footage.^[9]
6. Gonzo journalism : first championed by Hunter S. Thompson, gonzo journalism is a "highly personal style of reporting".^[10]
7. Interactive journalism : a type of online journalism that is presented on the web
8. Investigative journalism : in-depth reporting that uncovers social problems. Often leads to major social problems being resolved.
9. Photojournalism :the practice of telling true stories through images
10. Sensor journalism : the use of sensors to support journalistic inquiry.
11. Tabloid journalism : writing that is light-hearted and entertaining. Considered less legitimate than mainstream journalism.
12. Yellow journalism (or sensationalism) :writing which emphasizes exaggerated claims or rumors.
13. Red journalism

Sources of Agricultural News

1. Result demonstrations
2. Research Stations
3. Research publications :Annual reports, highlights
4. Kisanmelas
5. Farmers fields
6. Agricultural Universities / State Departments
7. Other extension activities like field days/training programmes, etc
8. Plan estimates related to agriculture and allied activities
9. Agriculture finance institutions
10. Agriculture input agencies
11. Agriculture Market committees
12. Electricity and irrigation sectors
13. Farmers committees and associations
14. NGOs etc.

News

News is a timely, concise, accurate report of an event; it is not the event itself.

Report of any event containing timely and unknown information is called news.

Agricultural News

Agricultural news is news about agriculture, allied fields and agriculturists.

People read what interest them and not necessarily what should interest them. Major responsibility is cast on the extension personnel as an agricultural journalist to evoke responsive

reading from the readers by providing them the material of their interest. We can reach farm people with our information, ideas, and thoughts through various media like the news papers, magazines, radio, television and the like.

News elements or

Laws which determine the worthiness of information or

Factors which determine the news value

1. **Timeliness:** The more timely information, the greater is the news value.
2. **Nearness:** The closer information seems to the reader, geographically and psychologically, the greater is news value.
3. **Consequence:** The more the readers are affected by the information, the greater is its news value.
4. **Human interest:** Information concerning human interest elements such as new programmes, personal involvement, profitability, progress etc., has more news value.
5. **Prominence:** Prominent people, places, things, events, carry more news value.
6. **Editorial policy:** The editorial policy of printing materials broadly determines the kinds and amount of information it publishes.

Journalistic Writing

Based on the queries:

- The why of writing
- The whom of writing
- The what of writing
- The where of writing
- The when of writing
- The how of writing

Use ABC principle of good writing

- Accuracy Brevity (Brief) and clarity
- Accuracy means grammatical correctness
- Brevity means economy in word usage, pruning away useless words. Avoid repetition and redundancy
- Clarity in writing means the ability to state our thoughts without any ambiguity

Writing News story, Feature articles and Success story

News Story:

The news items that appear in newspapers are also called news stories. A news story is always based on facts. A news story is an organized representation of facts in an interesting manner. It has found by observation and experience. Pictures, photographs and illustrations combined with make the best news story.

A news story is normally written in inverted pyramid style, that is, the most important facts come first followed by other facts in order of significance. The inverted pyramid style has

developed in journalism over the years.

Inverted pyramid style: The most widely used approach in news writing is the inverted pyramid style. The information is given in the descending order of importance. Thus, It has three parts: Lead-Introduction paragraph, Body - support and supplement to the lead. Conclusion-Closing paragraph.

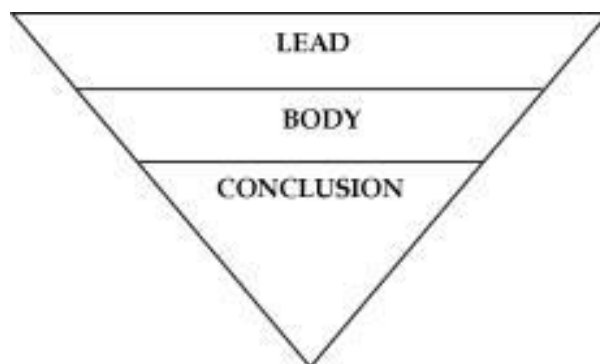
Lead: The first paragraph of the story is called intro or lead. The first paragraph of the story which is the 'show window' should put the best of oneself. There are innumerable ways of writing intro or lead. Based on the writer's judgment of the readers' needs and interests, he should design the lead in an attractive manner to answer who, what when, where, how, and why of the event. The opening statement of the lead is called feature. This must be skillfully worded to work as a bait to catch readers. The strongest or the most appealing aspect of the presentable matter may be put forth in the feature. A good lead grabs your readers' attention and refuses to let go. The lead establishes the direction of your writing will take.

Body: After the lead/intro is written, the body of the story will follow the logical order of the inverted pyramid style. The story in order to be interesting should in the body contain the supporting facts. A good news story usually consists of 200-300 words. The story may have few or several paragraphs depending upon the matter available and the objective of the story writer. But it should follow the lead. This will facilitate the editor as well as the reader to decide where to stop.

Conclusion: Journalist should give digest of facts, conclude the story logically. The story should end with some encouraging and appealing words, phrases or sentences so as to sustain their interest in the future messages.

Reporters using the inverted pyramid style of writing, normally summarize a story in the lead and present the facts in descending order of importance. Consequently they place the story's most important details in the second paragraph. They continue to add details in decreasing order of importance. Each paragraph presents additional information: names, descriptions, quotations, conflicting viewpoints, explanations and background data.

The primary advantage of the inverted pyramid style is that if someone stops reading a story after only one or two paragraphs, that person will learn the story's most important details. Moreover if a story is long editors can easily shorten it by deleting one or more paragraphs from the bottom. However, this style also has several disadvantages. Just because the lead summarizes facts that later paragraphs discuss in greater detail some of those facts may be repeated. Second a story that follows the inverted pyramid style rarely contains any surprises; the lead immediately reveals every major details. Third, the style makes some stories more complex and more difficult to write. Despite these problems, reporters use the inverted pyramid style for most news stories.



Inverted pyramid structure

Six 'W's of Writing : The main purpose of writing is to communicate in such a manner that you attract the attention of your readers, interest them in what you are going to say, make them understand and remember, and finally help them take decision to act. SixWs of writing also popularly known as 5Ws and 1H. Your writing has to serve the following purposes or fundamentals or principles.

1. 'WHY' (The 'Why' of writing) : It should make clear the purpose for which the writing has been made before starting the writing. Is it something new, which the audience must know? or is it to explain and give more information about something already known? Why do you want to teach this?
2. 'WHO' (The 'Who' of writing) : It must answer the targeted audience who are to read. Writer should know more about them than just what he knows. Writers ideas must touch the readers and secure his interest. His problems and desires be known to know the 'WHO' is writing. Understanding the need of the audience is essential. Identify the reader, his problems, interests, needs, environments and capabilities.
3. 'WHAT' (The 'What' of writing) : Select the subject in which the readers are vitally interested. Do not tell them all that is known about the subject like textbooks.
The message should:
 - Be sound and useful meeting the needs of the farmers.
 - Give one idea at a time with related logical thoughts.
 - Contain all essential facts. Do not delete them for fear of length.
 - Give new idea leaving aside what people already know.
4. 'WHERE' (The 'Where' of writing)
"Where" to get the message published that has been written containing different types of information's written for different published media must be known.
 - Results of research and demonstrations, stories of accomplishments and information of immediate use are published through circular - letters, newspapers, radio and newsletters.
 - If the information does not lose its value after a short time, the same with some more details as go as articles to weekly features of dailies, weeklies and monthly magazines.
 - Where more details are desirable, the detailed information can be brought out through leaflets, folders and bulletins or pamphlets.
 - By writing properly, you can give out detailed accounts through reports and resumes, which will be read avidly.

5. 'WHEN' (The 'When' of writing) : The information has to be timely to be useful. Therefore, it should be written far in advance of actual time or season of the use of message. "Time" the writing.
6. 'WAY' (The 'How' of writing) : After the selection of the relevant facts, they have to be sifted and sort. Writing should be to the level of readers experience or understanding. Layman may be given an appreciation of subject matter rather than detailed explanation.

Effective Writing Technique

1. Plan before writing: First of all collect the relevant material. Think before you write. Pre writing makes it possible to avoid the duplication and elimination of the proper writing material together with logical arrangement of the text to the readers.
2. Live writing: Appreciation of the subject is given through 'live' writing. Appeal to all the sense of your readers. They not only like to 'see' your ideas, but get the feeling of 'hearing' them, 'smelling' them and 'touching' them too. It gives a sense of reality humanness, enjoyment and education.
3. Write simple and clear: Give no room to the readers to miss or misunderstand any of your ideas.
4. Be brief: People have little time and patience to through the long texts unless it is a fiction or story.
5. Be specific: Generalization is always vague and does not help the reader make decisions.
6. Do not be 'Half Hearted': Avoid making, halting recommendations. Do not use words 'May', 'Might' etc.
7. Address the reader: A direct approach to the reader creates friendliness.
8. Illustrate: Use appropriate pictures. It possesses significant effect on readers.
9. Be accurate: Collect the accurate information and also state them correctly. Avoid partially correct information. Do not omit important ideas. Avoid partially correct placing emphasis.
10. Sound convincing: Quote sources and authorities for people believe them.
11. Do not 'Talk Down': Do not preach. No one likes a superior attitude. We are to only give information.
12. Be practical: People want the information, which they can put to practice. They do not have academic interests.
13. Avoid exaggeration: State the facts without being carried away by them yourself. It makes the readers suspicious.
14. Personalize the message: Introduce the human element into the message write in first and second person only.
15. Check the draft: The text must be checked thoroughly for its completeness, conciseness, correctness, effectiveness and logical order.
16. Develop a good style: Style is the crux of all writing each has one's own style of writing. It comes through reading the successful writers; you also need to know a good number of words, which comes only through good reading.

Capacity building of Extension Personnel:

- (I) **MANAGE (National institute of Agricultural Extension Management):**

MANAGE was established in 1987, as the National Centre for Management of Agricultural Extension at Hyderabad, by the Ministry of Agriculture & Farmers Welfare, Government of India as an autonomous Institute, from which its acronym 'MANAGE' is derived. In recognition of its importance and expansion of activities all over the country, its status was elevated to that of a National Institute in 1992 and re-christened to its present name i.e., National Institute of Agricultural Extension Management. MANAGE is the Indian response to challenges of agricultural extension in a rapidly growing and diverse agriculture sector. The policies of liberalization and globalization of the economy and the level of agricultural technology becoming more sophisticated and complex, called for major initiatives towards reorientation and modernization of the agricultural extension system. Effective ways of managing the extension system needed to be evolved and extension organizations enabled to transform the existing set up through professional guidance and training of critical manpower. MANAGE is the response to this imperative need.

National Institute of Agricultural Extension Management, known as **MANAGE**, formerly **National Centre for Management of Agricultural Extension at Hyderabad**, is an autonomous agricultural education institute located in Hyderabad, Telangana, India. The aim of the institute is to instill managerial and technical skills to Extension Officers, Managers, Scientists and Administrators in the agricultural economy, to enable them to provide support and services to farmers and fishermen for practicing sustainable agriculture.

Professional Services

MANAGE offers its services in the following five streams viz.,

- Management Training
- Consultancy
- Management Education
- Research
- Information Services

Mandate

The mandate of MANAGE vests the institute with the responsibility to work in the following directions:

- Developing linkages between prominent state, regional, national and international institutions concerned with agricultural extension management
- Gaining insight into agricultural extension management systems and policies
- Forging collaborative linkages with national and international institutions for sharing faculty resource
- Developing and promoting application of modern management tools for improving the effectiveness of agricultural extension organizations
- Organizing need based training for senior and middle level agricultural extension functionaries
- Conducting problem oriented studies on agricultural extension management
- Serving as an international documentation center for collecting, storing, processing and disseminating information on subjects related to agricultural management.

Areas of Training: MANAGE has established different centres for giving training to extension functionary. The Centre wise areas are as under.

1. Centre for Agricultural Extension Policy, Reforms and Processes Agri-Business Management	
1	Farming Situation Based Extension
2	Farming Systems Approach
3	Re- Visiting of SREP
2. Centre For Agri-institution Capacity Building	
1	WTO and its Implications on Indian Agriculture
2	Training of Master Trainers on Planning and Management of Integrated Watershed Management Projects
3	Managerial Skills for Convergence in Agricultural Extension
4	Effective Communication for Extension Functionaries
5	Leadership for Innovation in Agriculture
6	Self Management – Through Personal Profiling
7	Research Methods and Documentation for Extension Personnel
8	Work Ethics for Developmental Professionals
3. Center for Agricultural Markets, Supply Chain Management and Extension Projects	
1	Agricultural Marketing - The New Paradigms
2	Linking Farmers to Market
3	Supply Chain Management in Agriculture
4	Market-Led Extension
5	Project Planning and Management
4. Centre for Allied Extension and Water / Input Use Efficiency	
1	Fisheries Extension-1
5. Centre for Knowledge Management, ICT and Mass Media	
1	Application of Remote Sensing and Geographic Information Systems (GIS) in Agricultural Development
2	Project Planning and Management using MS Project

3	Writing for Print Media and Electronic Media
4	Process Documentation for Agriculture and Rural Development
5	Agriculture Knowledge Management
6	Improving eGovernance in Agriculture
6. Center for Agripreneurship, Youth and Public Private Partnership	
1	Agri-clinic and Agribusiness center
2	Public Private Partnership
7. Center for Women and Household Food and Nutritional Security, Urban Agriculture & Edible Greening	
1	Food & Nutritional Security of Women in Agriculture
2	Gender Mainstreaming in Agriculture & Allied Sectors
3	Participatory Extension Management
4	Leadership for Women in Agriculture
5	Climate Change and Agriculture
8. Center for Agrarian Studies, Disadvantaged Areas, NRM Extension and Social Mobilization	
1	Formation and Management of Producers' Groups (PGs) and Federations

Extension Education Institute

India is very rich in human resources. Before a few decades, we were very poor in their proper utilization, which fact has great impact on our production and productivity. Being agrarian country nearly 68 to 70 per cent of our population depend upon agriculture. Hence, the resource in terms of extension functionaries and its judicious utilization requires keen attention. The technical capacity and competency of extension functionaries should be increased and updated as per the global needs. The implementation of WTO opens the avenues for competition worldwide. In this competitive era, both our extension functionaries and our ultimate user of agricultural technology i.e. our farmer should be updated and upgraded in terms of technology. For up gradation of farmer's capacity and compatibility, the existing pattern of KVKs is functioning very well. The Directorate of Extension, Ministry of Agriculture, New Delhi is always maintaining pace with advancement of agriculture on global level. With this intent, Government of India has established four Extension Education Institutes in the four regions of India. i.e. EEI Jorhat,

Asam for eastern region, EEI Anand, Gujarat for western region, Nilokheri, Haryana for northern region and EEI Hyderabad for southern region.

The Extension Education Institute, Anand is popularly known as EEI. It is an Apex Regional Training Institute formed on September 17, 1962. The Extension Education Institute, Anand cater the extension training needs of Western Zone States viz., Gujarat, Maharashtra, Madhya Pradesh, Chhattisgarh, Rajasthan, Goa, and Union territories of Dadra Nagar haveli, Div and Daman.

The Extension Education Institute (EEI), Anand is one of the four foremost institutes for training of extension personnel in India. The institute was established on 17th September, 1962 with initial financial assistance from "Ford Foundation" through Ministry of Food and Agriculture, Government of India, New Delhi. The foundation stone of this institute was laid by Dr. Douglas Ensminger, Ford Foundation Representative in India on Friday the 6th October, 1961. By now, it has completed around 57 years. It caters to the extension training needs of extension functionaries in the states of Rajasthan, Gujarat, Madhya Pradesh, Chhattisgarh, Maharashtra, Goa and Union Territories (UTs) of Diu-Daman and Dadra Nagar Haveli, since its inception. This institute conducts various types of on-campus and peripatetic training courses in the areas of interest of clientele states.

Mandate and Objectives

The main mandate of EEI, Anand is to train middle level extension functionaries of various line departments to improve upon their job performance wherever they are working in different capacities.

The crucial objective of Extension Education Institute, Anand is to prepare high quality extension professionals who can serve in their concerned line departments / SAUs / Institutes in a better way. The Specific Objectives of this institute are:

1. To provide learning experience that leads to an increasing understanding of the extension education process and their application in the rural development programs
2. To develop among trainees a thorough understanding of the basic principles of learning, teaching and skill in the procedures and techniques of applying them both in class room and field conditions
3. To demonstrate effective extension education teaching procedures, methods and techniques
4. To develop and carry on a continuous research in the methods and procedures of extension education
5. To prepare and publish useful basic material related to extension education process
6. To acquaint trainees with the sources of useful information and material related to their professional need and help them to develop skills in collecting, processing and use of such information

Role of EEI:

The ATMA approach has been adopted across the country and some of the states of western region have started single window system in which all land-based activities are carried out. The technical manpower may be proficient in subject-matter knowledge of

Agriculture, Horticulture, Animal Husbandry & Veterinary Science, Fisheries Science, Sericulture or any related fields; however they are lacking the requisite skills of transmitting the research messages to the farming community effectively. Likewise, the master trainers of SAUs and Extension Officers of NGOs / Corporate Sector also require the trainings. EEI has to play a specific role for this purpose.

Training and Other Activities

The activities conducted by Extension Education Institute, Anand cover the following areas:

- (a) Scheduled on/off campus training courses
- (b) Non-scheduled or additional consultative / collaborative training courses as per the demand from clientele.
- (c) Follow up studies
- (d) Research in extension education
- (e) Post-graduate teaching
- (f) Farmers Training Programms

EEI in Present Context

The EEI-Anand has to play a vital role in the present context. The Government of India has implemented reforms in agricultural extension since 10th plan period. The ATMA approach is one of the reforms in agricultural extension, wherein all line departments have to work together under one umbrella at district level. In order to upgrade the capacity building of extension functionaries, EEI-Anand organizes various training programmes in the following broad areas.

1. Communication skills for effective extension services
2. Participatory training management skills
3. Up-gradation of HRD skills
4. Application of remote sensing and geographic information systems (GIS)
5. Mass media for TOT
6. PRA tools and techniques for SREP Development
7. Climate change and its impact on agriculture
8. Participatory extension management skills
9. Writing skills for print and electronic media
10. Knowledge management system and web designing
11. Community based natural resources management
12. Promotion of public-private partnership
13. ICT application and M-Kisan portal
14. Promotion of IPM
15. Problem solving skills
16. Participatory programme planning, monitoring and evaluation
17. Soft skills for personality development
18. Entrepreneurship development for rural transformation
19. Management of CIGs and FOs

20. Recent extension approaches for effective TOT
21. Good animal husbandry & veterinary practices for doubling of animal owners income
22. Gender mainstreaming and leadership skills
23. Promotion of organic farming
24. Value addition and post harvest management of agriculture and horticulture crops
25. Leadership development and team building skills
26. Farm business management
27. Agribusiness and marketing information system
28. Improving e- Governance in agriculture & allied sector
29. Use of social media for transfer of technology
30. Video production technology

(II) State Agricultural Management and Extension Training Institutes

Introduction

Under the World Bank aided National Agricultural Technology Project (NATP) the Innovation in Technology Dissemination (ITD) component envisages major institutional and operation reforms to generate demand for services, providing a cost sharing mechanism for agricultural operation in agricultural technology, assessment, assignment and dissemination technological knowledge to farmers. For operationalization of project, institutions like Agricultural Technology Management Agencies (ATMAs) have been established in 28 districts, (4 in each State) covering AP, Maharashtra, Bihar, Punjab, HP, Jharkhand and Orissa. In order to develop a competent structure for providing demand driven consultancy services and capacity building of the stake holders in the agricultural extension management, one SAMETI in each of the seven States has been established. SAMETIs are to provide HRD/Training support to organize programmes for capacity building in agricultural management and extension training for the stake holders of NATP.

What for SAMETIs?

SAMETIs are declared autonomous with greater flexibilities in structure and functioning and responsible for organizing need-based training programmes for project functionaries from different line departments as well as the farming community.

Mandate of the SAMETIs

1. To function as agricultural management and training institute at State level.
2. To provide consultancy in areas like project planning, appraisal and in agricultural management and extension training.
3. To develop and promote the application of management tools for effective agricultural extension services.
4. To organize need-based training programmes for middle level and grass-root level agricultural extension functionaries.

5. To conduct problem oriented studies in agricultural management, communication, participatory methodologies, post harvest technology and marketing.
6. To take up HRD/training activities including preparation of SREP for ATMA.

Role of SAMETIs

1. To provide need-based consultancy services to ATMA
2. To develop and promote appropriate and specific management tools for improving the effectiveness of agricultural extension services provided by line departments to farmers and make use of available material and human resources.
3. To have close linkages with other institutions like KVK, ZRS, SAUs, Mgt. Institutions, MANAGE to use appropriate faculty resources.
4. To conduct studies on problems related to agricultural extension management, communication and information technology, agricultural produce marketing, HRD participatory methods.

Man-power in each SAMETI

1. Director
2. Faculty Member (Participatory Extension Management)
3. Faculty Member (Information Technology)
4. Faculty Member (HRD)
5. Supporting Staff
6. Computer Operator

MOU between SAMETIs & SAUs:

SAMETIs created in seven NATP States are provided a limited HRD capacity in management and I areas. As such, a Memorandum of Understanding between SAMETIs and SAUs has been made.

Governing Council/Board:

Each SAMETI has its Governing Council/Board under the chairmanship of Agricultural Production Commissioner/Chief Secretary of the concerned States.

Executive Council:

Each SAMETI has Executive Council.

Autonomy

Each of the SAMETI has been registered under the Society's Registration Act and work as autonomous institute.

Organization structure of SAMETI



Krishi Vigyan Kendra

The vigorous attempt was realized by the Education Commission (1964-66) to establish a specialized institution to provide vocational education in agriculture and allied fields at the pre and post matriculation levels to cater to the training needs of a large number of boys and girls coming from rural areas. The recommendation of Education Commission was thoroughly discussed during 1966-1972 associating the Ministry of Agriculture, Ministry of Education, Planning Commission, ICAR and other institutions. Finally, the Indian Council of Agricultural Research (ICAR) mooted the idea of establishing Krishi Vigyan Kendra (Farm Science Centre) as innovative institutions for imparting vocational training to the farmers and field level extension functionaries. As a result of this, in 1973 a committee headed by Dr. Mohan Singh Mehta of Seva Mandir, Udaipur (Rajasthan) was constituted and based on its report in 1974 it was decided to have Krishi Vigyan Kendra (KVKs) as Farm Science Centers for speedy transfer of technology to the farmer's fields.

The first K V K was established in 1974 at Pondicherry under the administrative control of the Tamilnadu Agricultural University, Coimbatore. In Gujarat 1st KVK was established in Deesa during 1976 which is working nowadays under the administrative control of the SDAU, Sardarkrushinagar. At present total 695 KVKs (as on 24th September 2018) including 30 KVKs of Gujarat are established and functioning in the country.

Vision

Science and technology-led growth leading to enhanced productivity, profitability and sustainability of agriculture.

Mission

Farmer centric growth in agriculture and allied sectors through application of appropriate technologies in specific agro-ecosystem perspective.

The Mandates of the KVK's are

The final revised mandate of KVK is Technology Assessment and Demonstration for its Application and Capacity Development. (TADA-CD)

It includes:

1. Conducting on-farm testing to identify the location specificity of agricultural technologies under various farming systems
2. Organizing frontline demonstrations to establish production potential of various crops and enterprises on the farmers' fields
3. Organizing training for capacity development of farmers and field extension personnel to orient them in the frontier areas of technology development
4. Creating awareness about improved technologies to larger masses through appropriate extension activities
5. Work as resource and knowledge center of agricultural technology for supporting initiatives of public, private and voluntary sector for improving the agricultural economy of the district
6. Production and supply of good quality seeds and planting materials, livestock, poultry and fisheries breeds and products and various bio-products to the farming community

Objectives:

1. To demonstrate the latest agricultural technologies to the farmers as well as the extension workers of the State Department of Agriculture / Non-Governmental organizations with a view to reducing the time-leg between the technology generation and its adoption.
2. To test and verify the technologies in the socio-economic condition of the farmers and identifying the production constraints.
3. To get first-hand scientific feedback from the fields and passing it to the research system in order to keep the scientists abreast with the performance of the technologies and the farming problems, so that they re-orient their research, education and training programme accordingly.
4. To impart training to the farmers, farmwomen, rural youth and field level extension functionaries by following the principles of "Teaching by doing" and "Learning by doing".
5. To provide training and communication support to the line department of the State/NGOs.
6. To develop extension models to be adopted by general extension system for large scale multiplications.
7. Organizing farm science clubs in rural areas for young farmers.
8. Developing and maintaining demonstration units on KVK farm in scientific lines.

Activities of Krishi Vigyan Kendra:

Based on mandate, the following activities are performed by the KVKs.

1. On farm testing.
2. Front line demonstrations.
3. Vocational training of practicing farmers, farm women and rural youths.
4. In service training of extension functionaries.
5. Serve as knowledge center in the district.
6. Farm advisory other extension activities.

The above said activities are performed every year by the Krishi Vigyan Kendra, through specialist of six disciplines viz., Extension Education, Agronomy, Horticulture, Plant Protection,

Animal science, Agriculture Engineering (the specialist can be changed as per location specific need), which are most relevant taking into consideration national resources and infrastructure facilities of the district.

Features of Krishi Vigyan Kendra:

1. Powerful technical support
2. Real experience as training
3. Need based training courses
4. Flexibility with farmers
5. Concept of integrated training
6. Real field oriented course content
7. Specific area of operation
8. Informal training without certificate or diploma
9. Powerful institutional linkage
10. Practical training
11. Frequent follow up measures
12. Training interaction and reporting systems
13. Impact study of the trainings, demonstrations and all extension activities

Organization of KVK:

The project is sponsored by the ICAR and implemented by its Research Institutes, State Agricultural Universities (SAUs), NGOs and State Department of Agriculture. In selecting host institutions preference is given to institutions/agencies having agriculture base and experience of rural development and training.

The KVK is headed by a Senior Scientist of the rank of an Associate Professor designated as Programme Coordinator with sufficient field experience in the field of agricultural extension or agronomy. The head is supported by scientists (Training Associate) in field of Extension, Agronomy, Horticulture, Home science, Agricultural engineer, Animal science, Soil science, Fisheries, Plant protection etc. (according to regional requirement). The head is also supported with three technical staff designated as Training Assistant (Computer programmer, Farm Manager, Training).

The Local Management Committee, which is now renamed as Scientific Advisory Committee in each KVK, is an important instrument of management. This committee is devoted to constantly review the progress of the KVK, provide guidance for organizing training programmes and follow-up extension activities and redress, wherever possible. This is strong mechanism for functional linkage with other sister organizations/institutions.

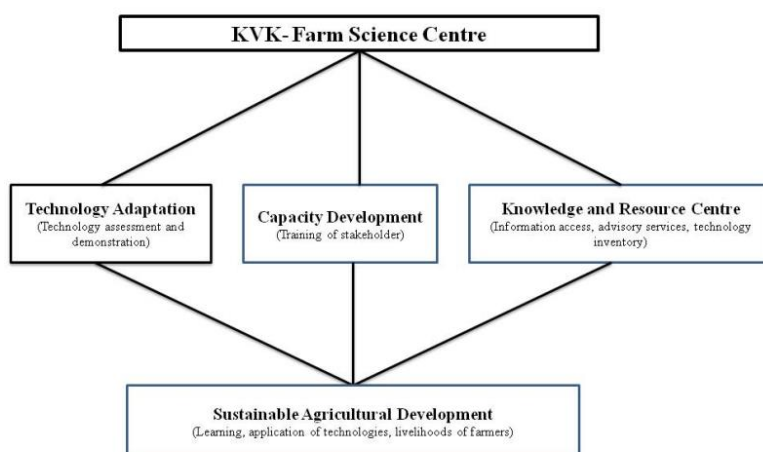
Chairman of SAC: Head of the host institute

Other Members of SAC: DEE, Director ATARI, Representative ICAR institute, Associate Director of Research of the zone, District officers of the line departments, Representative of

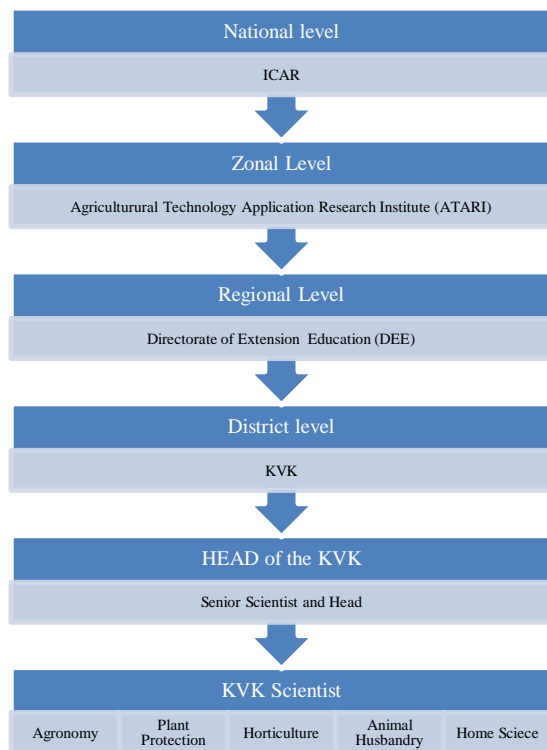
NABARD and Lead bank, District information officer, 2 farmer's representatives among which one should be woman farmers.

Manpower in KVK

At present, there are six SMSs (recommended to be re-designated as Scientists), each one taking care of one subject matter area. The KVKs have to provide multidisciplinary and broad based technological interventions to enable farmers to manage their farm in a sustainable and integrated manner, which demands enhanced manpower not only in terms of number but also covering the most important subject matter areas relevant to the district. With ever-growing nature and quantum of workload of each KVK, the existing six SMSs are finding it difficult to cope up with their responsibilities. Therefore, as per new KVK guideline of ICAR recommended that four additional posts of SMSs (Scientists) should be created in each KVK, thus, increasing the number of SMSs to 10 and also recommended that the total staff strength for each KVK should be 22 as against 16 at present.



Functional structure of KVK



Organizational Structure of KVK

**Title of Course: Entrepreneurship Studies and Business
Communication**

Course No.: Ag. Ext. 6.4

Credit hours: 1+1=2

Prepared by:

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Chapter-1 Concept of Entrepreneurship

Meaning

Entrepreneurship is a process of actions of an entrepreneur who is a person always in search of something new and exploits such ideas into gainful opportunities by accepting the risk and uncertainty with the enterprise. It is the process of starting a business, a start-up company or other organization. The entrepreneur develops a business plan, acquires the human and other required resources, and is fully responsible for its success or failure. Entrepreneurship operates within an entrepreneurship ecosystem.

The word “entrepreneur” is derived from the French verb “entreprendre”, which means ‘to undertake’. This refers to those who “undertake” the risk of new enterprises. An enterprise is created by an entrepreneur. The process of creation is called “entrepreneurship”.

Definitions

“Entrepreneurs are people who have the ability to see and evaluate business opportunities, together with the necessary resources to take advantage of them and to intimate appropriate action to ensure success.”

-International Labour Organization

Entrepreneur searches for change, responds to it and exploits opportunities. Innovation is the specific tool of an entrepreneur.

-Peter F. Drucker

Entrepreneur is the one who is endowed with more than average capacities in the task of organizing and coordinating the various factors of production. He is pioneer and captain of industry.

-Francis A. Walker

Entrepreneurship is the purposeful activity of an individual or a group of associated individual, undertaken to initiate, maintain or aggrandize profit by production or distribution of economic goods and services.

-A.H. Cole

Characteristics of an Entrepreneur

If we go through the business history of India, we come across the names of persons who have emerged as successful entrepreneurs. For example, Tata, Birla, Modi, Dalmia and others are well-known names of successful entrepreneurs in the country who started their business enterprises with small size and made good fortunes. Success or otherwise of a small enterprise is, to a great extent, attributed to the success or otherwise of the entrepreneur himself/herself. Then, the question is: What makes the entrepreneurs successful? Whether they had anything common in their personal characteristics? The scanning of their personal characteristics shows that there are certain characteristics of entrepreneurs which are found usually prominent in them. The principal ones are scanned and discussed here:

1. Hard Work: Willingness to work hard distinguishes a successful entrepreneur from unsuccessful one. The entrepreneur with his tedious, sweat-filled hours and perseverance revive their business even from on verge of failure. In nutshell, most of the successful entrepreneurs work hard endlessly, especially in the beginning and the same becomes their whole life.

2. Desire for High Achievement: The entrepreneurs have a strong desire to achieve high goals in business. This high achievement motive strengthened them to surmount the obstacles, suppress anxieties, repair misfortunes and devise expedients⁷ and only set up and run a successful business.

3. Highly Optimistic: The successful entrepreneurs are not disturbed by the present problems faced by them. They are optimistic for future that the situations will become favourable to business in future. Thus, they can run their enterprises successfully in future.

4. Independence: One of the common characteristics of the successful entrepreneurs has been that they do not like to be guided by other and to follow their routine. They resist to be pigeonholed. They liked to be independent in the matters of their business.

5. Foresight: The entrepreneurs have a good foresight to know about future business environment. In other words, they well visualize the likely changes to take place in market, consumer attitude, technological development, etc. and take timely actions accordingly.

6. Good Organizer: Different resources required for production are divorced from each other. It is the ability of the entrepreneurs that brings together all resources required for starting up an enterprise and then to produce goods.

7. Innovative: Production is meant to meet the customers' requirements. In view of the changing taste of customers from time to time, the entrepreneur's initiate research and innovative activities to produce goods to satisfy the customer's changing demands for the products. The research institutes/centres established by Tata, Birla, Kirloskar, etc. are examples of the innovative activities taken by the successful entrepreneurs in our country.

8. Self-control: Entrepreneurs do not function well in structured organization where they are not independent to act. Most of the entrepreneurs do the job better when they have full responsibility and accountability for the job. Entrepreneurs do better if they are allowed to have their own way without interference from the authority. They need the freedom to choose and to act according to their own perception of what actions will result in success.

9. Self confidence: Self confidence is the control over the things while working alone. Entrepreneurs tackle problems immediately with confidence and are persistent in the pursuit in their best in the face of adversity since they thrive on their own self confidence.

10. Sense of urgency: Entrepreneurs have a never ending sense of urgency to develop their ideas. Inactivity makes them impatient tense and uneasy. They thrive on activity. They have drive and high energy levels, they are achievement oriented and they are tireless in the pursuit of their goals.

11. Comprehensive awareness: Successful entrepreneurs can comprehend complex situations that may include planning, making strategic decisions and working on multiple business ideas simultaneously. They are farsighted and aware of important details and the will continuously review all the possibilities to achieve their business objectives. They devote their energy in completing the tasks immediately before them.

12. Realism: Entrepreneurs accept the things as they are and deal with them accordingly. They will change their direction when they see that change will improve the prospects for achieving their goals. They want to know the status of a given situation at all times. They will verify any information they receive before they use it in making a decision.

13. Conceptual ability: Entrepreneurs possess the ability to identify relationship quickly in the midst of complex situations. They identify problems and begin working on their solution faster than other people. They are not troubled by ambiguity and uncertainty because they are used to solving problems. Entrepreneurs are natural leaders and they are usually first to identify a problem to be overcome. It is pointed out

to them that their solution to a problem will not work for some valid reason; they will quickly identify an alternative problem solving approach.

14. Status requirements: Entrepreneurs find satisfaction in symbols of success that are external to them. During tough business periods entrepreneurs will concentrate their resources and energies on essential business operations. Symbols of achieving such as position have little relevance to them. Successful entrepreneurs find their satisfaction of status needs in their performance of their business not in the appearance they present to their peers and to the public.

15. Interpersonal relationship: Entrepreneurs are more concerned with people's accomplishments than with their feelings. They generally avoid becoming personally involved and will not hesitate to sever relationships that could hinder the progress of their business. During the business building period, when resources are scarce, they seldom devote time to dealing with satisfying people's feelings beyond what is essential to achieving their goals. Entrepreneurs with good interpersonal skill will be able to adjust and survive as their organization grows and become more structured.

16. Emotional stability: Entrepreneurs have considerable amount of self control and can handle business pressures. They can be comfortable in stress situation and are challenged rather than discouraged by setbacks and failures. Entrepreneurs are uncomfortable when things are going well. They will frequently find some new activity on which to vent their pent – up energy. They handle people problems with action plans without involving in their emotions.

17. Risk taking: The business cannot thrive without taking risks and adjusting to change. However, the entrepreneur should know that taking high risk is gamble. Entrepreneurs should be neither high nor low risk takers. They prefer situations in which they can influence the outcome and they like challenges if they believe the odds are in their favour. They seldom act until they have assessed all risks associated with the job and they have an innate ability to make sense out of complexity.

18. Change and uncertainty: Entrepreneurs have to handle the sources of uncertainty that come with the territory without falling apart. The business opportunity is surrounded by uncertain questions like market size, pricing, and variability of the original idea, customer response and product/service in a reasonable length of time. Entrepreneurs must be able to lead, manage, identify priorities, execute and most important is to make decision in changing circumstances.

19. Decision-making: Decision making is a criterion of a successful entrepreneur. A person, who cannot reach a decision promptly once he has all the necessary information, cannot be depended upon to carry through on the decisions made. There is always linkage between deciding and acting to carry through. Not making a decision is a bad decision.

After going through the above points of distinctions, it is clear that an entrepreneur differs from a manager. At times, an entrepreneur can be a manager also, but a manager cannot be entrepreneur. After all, an entrepreneur is an owner, but a manager is a servant.

Skills of Entrepreneurship

1. Economic and dynamic activity: Entrepreneurship is an economic activity because it involves the creation and operation of an enterprise with a view to creating value or wealth by ensuring optimum utilization of scarce resources. Since this value creation activity is performed continuously in the midst of uncertain business environment, therefore, entrepreneurship is regarded as a dynamic force.

2. Related to innovation: Entrepreneurship involves a continuous search for new ideas. Entrepreneurship compels an individual to continuously evaluate the existing

modes of business operations so that more efficient and effective systems can be evolved and adopted. In other words, entrepreneurship is a continuous effort for synergy (optimization of performance) in organizations.

3. Profit potential: Profit potential is the likely level of return or compensation to the entrepreneur for taking on the risk of developing an idea into an actual business venture.” Without profit potential, the efforts of entrepreneurs would remain only an abstract and a theoretical leisure activity.

4. Risk bearing: The essence of entrepreneurship is the ‘willingness to assume risk’ arising out of the creation and implementation of new ideas. New ideas are always tentative and their results may not be instantaneous and positive. An entrepreneur has to have patience to see his efforts bear fruit. In the intervening period (time gap between the conception and implementation of an idea and its results), an entrepreneur has to assume risk. If an entrepreneur does not have the willingness to assume risk, entrepreneurship would never succeed.

5. Skill full management: Entrepreneurship involves skill full management. The basic managerial skill is the most important characteristic feature of entrepreneurship. For effective management of an enterprise, the role of an entrepreneur is to initiate and supervise design of organization improvement projects in relation to upcoming opportunities is very much important.

6. Accepting challenges: Entrepreneurship means accepting challenges amidst risk and uncertainty. While accepting entrepreneurship as a career the entrepreneur accepts the challenges of all odds and puts his efforts to convert the odds into viable business opportunities by pooling together the resources of building and running the enterprise.

7. Goal-oriented Activity

The entrepreneur who creates and operates enterprises seeks to earn profits through satisfaction of needs of consumers; hence, entrepreneurship is a goal-oriented activity. Entrepreneurship emphasizes results, achievements and targets achieved. It is work done not imaginary plans or paper decisions. Hence entrepreneurship is a goal-oriented activity.

8. Value Creation: Next, we find that the process of creating value is a characteristic in describing entrepreneurship. Through entrepreneurship, new products, services, transactions, approaches, resources, technologies, and markets are created that contribute some value to a community or marketplace. We can also see value created when, through entrepreneurship; resources are transformed into outputs such as products or services. During this transformation process, value is created because the entrepreneur is fashioning something worthwhile and useful. Drucker says, “Until entrepreneurial act, every plant is a seed and every mineral just another rock.

9. Dynamic Process: Entrepreneurship is a dynamic function. Entrepreneur thrives on changes in the environment, which bring useful opportunities for business. An entrepreneur deals proactively with changing markets and environment. He looks at the changes as the source of market advantages, not as a problem. Uncertainties are market opportunities for him. He capitalizes on effecting market anomalies.

10. Uniqueness: Other characteristic found in entrepreneurship is that of uniqueness. Entrepreneurship involves new combinations and new approaches with which entrepreneurs are willing to experiment. Through Entrepreneurship unique products are created and unique approaches are tried. Entrepreneurship isn’t merely imitating what

others have done. It's doing something new, something untested and untried – something unique.

11. Interest and Vision: The first factor for entrepreneurial success is interest. Since entrepreneurship pays off according to performance rather than time spent on a particular effort, an entrepreneur must work in an area that interests her. Otherwise, she will not be able to maintain a high level of work ethic, and she will most likely fail. This interest must also translate into a vision for the company's growth. Even if the day-to-day activities of a business are interesting to an entrepreneur, this is not enough for success unless she can turn this interest into a vision of growth and expansion. This vision must be strong enough that she can communicate it to investors and employees.

12. Risk and Rewards: Entrepreneurship requires risk. The measurement of this risk equates to the amount of time and money you invest into your business. However, this risk also tends to relate directly to the rewards involved. An entrepreneur who invests in a franchise pays for someone else's business plan and receives a respectable income, while an entrepreneur who undertakes ground breaking innovations risks everything on an assumption that something revolutionary will work in the market. If such a revolutionary is wrong, she can lose everything. However, if she is right, she can suddenly become extremely wealthy.

Classification of Entrepreneurs

A. Based on Functional Characteristics (Given by Danhof)

1. Innovative Entrepreneur

An innovative entrepreneur is one who launches new products, discovers new markets, establishes new methods of production and restructures the enterprise. They focus on revolutionisation and development. Such entrepreneurs can do well only when certain level of development has already been achieved they look forward to improving upon the past.

2. Imitative or adoptive entrepreneur

Imitative Entrepreneurs adopt victorious innovations launched by the innovative entrepreneurs. They duplicate the technology and techniques innovated by others and they are suitable for underdeveloped countries. Imitative entrepreneurs are characterized by readiness to adopt successful innovations inaugurated by successful innovating entrepreneurs. Imitative entrepreneurs do not imitate the changes themselves, they only imitate techniques and technologies innovated by others. However, the talent of imitative entrepreneurs should not be under-estimated. Even imitative entrepreneurs are revolutionary and agents of change. They have ability to do things which have not been done before even though, unknown to them, the problem may have been solved in the same way by others. Innovative entrepreneur is creative, while imitative entrepreneur is adoptive.

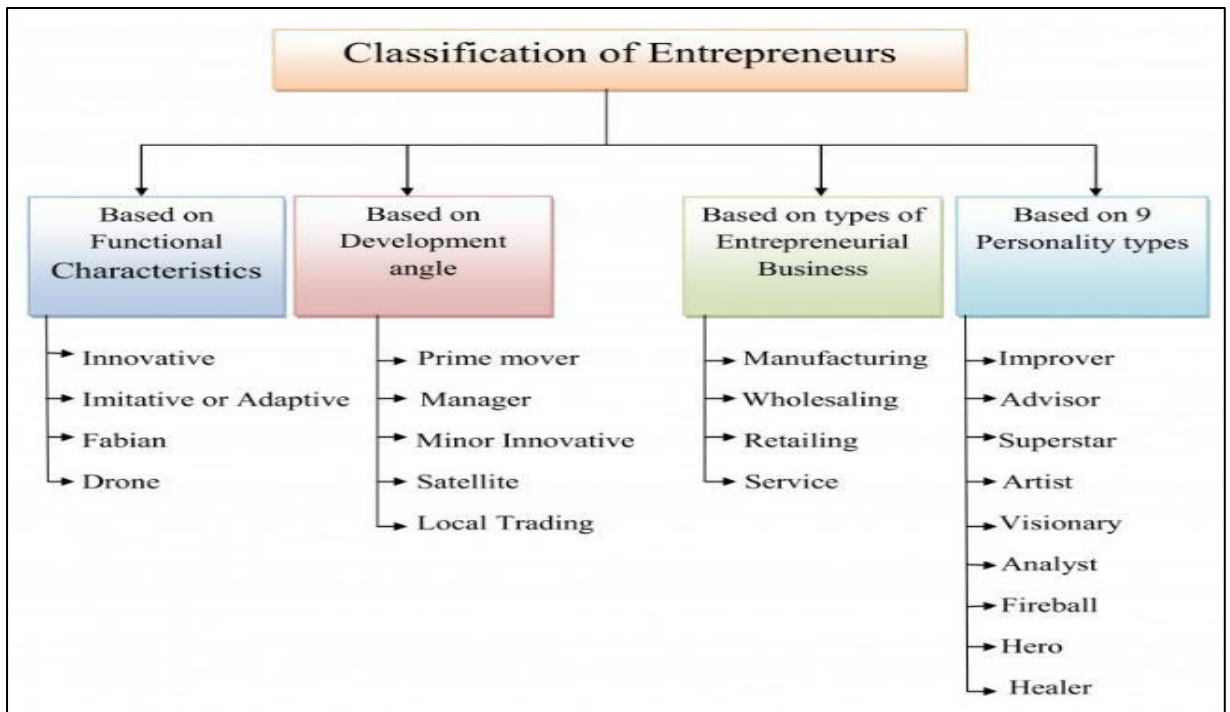


Fig -1 Classification of entrepreneurs

3. Fabian Entrepreneurs

Fabian entrepreneurs are exemplified by great caution and scepticism in experimenting any change in the organization. They imitate only in situations where it becomes necessary to do so. Such entrepreneurs are shy, lazy and lethargic. They are imitative by nature but are not determined and also lack power. They imitate only when it becomes perfectly clear that failure to do so would result in a loss of the relative position of the enterprise.

4. Drone Entrepreneurs

Drone Entrepreneurs suffer losses, as they refuse to make any modifications in the existing production methods. Drone entrepreneurs are characterized by a refusal to adopt opportunities to make changes in production formulae even at the cost of severely reduced returns. When competition increases, they are pushed out of the market as it becomes uneconomical for them to exist and operate in a competitive market.

B. Based on developmental angle

1. Prime mover: This entrepreneur sets in motion a powerful sequence of development, expansion and diversification of business.

2. Manager: Such an entrepreneur does not initiate expansion and is content just staying in business.

3. Minor innovator: This entrepreneur contributes to economic progress by funding better use for existing resources

4. Satellite: This entrepreneur assumes a supplier's role and slowly moves towards a productive enterprise.

5. Local trading: Such an entrepreneur limits his enterprise to the local market.

C. Based on Types of Entrepreneurial Business

1. Manufacturing

An entrepreneur who runs such a business actually produces the products that can be sold using resources and supplies. For example, apparel and other textile products,

chemical and related products, electronics and other electrical equipment, fabricated metal products, industrial machinery and equipment, printing and publishing, rubber and miscellaneous plastic products, stone, clay etc.

2. Wholesaling

An entrepreneur with such a business sells products to the middle Man.

3. Retailing

An entrepreneur with such a business sells products directly to the people who or consume them.

4. Service

An entrepreneur in this business sells services rather than products.

D. Based on the Nine Personality types of Entrepreneurs

Your business personality type is the traits and characteristics of your personality that blend with needs of the business. If you better understand your business personality, then you can give your company the best part of you. There are 9 key types of personality and understanding.

1) The Improver: They operate their business predominately in the improver mode, they are focused on using their company as a means to improve the world. Their overarching motto is morally correct companies will be re-warded working on a noble cause. Improvers have an unwavering ability to run their business with high integrity and ethics. These people are perfectionists and over-critical of employees and customers.

2) The Advisor: This business personality type will provide an extremely high level of assistance and advice to customers. The advisor's motto is the customer is right and we must do everything to please them. Companies built by advisors become customer focused. Advisors can become totally focused on the needs of their business and customers that they may ignore their own needs and ultimately burn out.

3) The Superstar: Here the business is cantered on the charisma and high energy of the Superstar CEO. This personality often will cause you to build your business around their own personal brand. Superstars can be too competitive and hard workers.

Entrepreneur example: Donald trump, CEO of Trump Hotels and Casino Resorts.

4) The Artist: This business personality is the reserved but a highly creative type. Often found in businesses demanding creativity such as web design and ad agencies. As an artist type you'll tend to build you business around the unique talents and creativities that they have. These may be overly sensitive to their customer's responses even if the feedback is constructive.

5) The Visionary: A business built by a Visionary will often be based on the future vision and thoughts of the founder. They will have a high degree of curiosity to understand the world around them and will set up plan to avoid the land mines. These types of people are visionaries can be too focused on the dream with little focus on reality. Action must precede vision.

Entrepreneurial example: Bill Gates, Founder of Microsoft Inc.

6) The Analyst: If they run a business as an analyst, their company focus is on existing problems in a systematic way. Often the basis for science, engineering or computer, Analyst companies excel at problem solving.

7) The Fireball: A business owned and operated by a Fireball personalities were having full of energy and optimism. Your company is life-energizing and makes customers feel the company has a get it done attitude in a fun playful manner. These people commit your teams and act to impulsively. Balance your impulsiveness with business planning.

8) The Hero: They have an incredible will and ability to lead the world and your business through any challenge. They are the essence of entrepreneurship and can assemble great companies. These people over promising and using force full tactics to get their way will not work long term. To be successful, trust their leadership skills to help others find their way.

9) The Healer: The Healer, provide nurturing and harmony to your business. They were having an uncanny ability to survive and persist with an inner calm. Because of their caring, healing attitude toward your business, you may avoid outside realities and use wishful thinking. Use scenario planning to prepare for turmoil.

A unique classification of entrepreneurs

I. Arthur H. Cole Classification: He classifies entrepreneurs as

1. Empirical: He is an entrepreneur hardly introduces anything revolutionary and follows the principle of rule of thumb.

2. Rational: The rational entrepreneur is well informed about the general economic conditions and introduces changes which look more revolutionary.

3. Cognitive: Cognitive entrepreneur is well informed, draws upon the advice and services of experts and introduces changes that reflect complete break from the existing scheme of enterprise.

II. Classification on the Basis of Ownership:

1. Private: Private entrepreneur is motivated by profit and it would not enter those sectors of the economy in which prospects of monetary rewards are not very bright.

2. Public: In the underdeveloped countries government will take the initiative to share enterprises.

III. Classification Based on the Scale of Enterprise:

1. Small scale: This classification is especially popular in the underdeveloped countries. Small entrepreneurs do not possess the necessary talents and resources to initiate large scale production and introduce revolutionary technological changes.

2. Large scale: In the developed countries most entrepreneurs deal with large scale enterprises. They possess the financial and necessary enterprise to initiate and introduce new technical changes. The result is the developed countries are able to sustain and develop a high level of technical progress.

In recent years, some New Classifications have been made regarding entrepreneurs, which are discussed further.

1. Solo operators: These entrepreneurs prefer to set up their business individually. They introduce their own capital, intellect and business acumen to run the enterprise successfully. They operate their business mainly in the form of proprietorship type of concern.

2. Active partners: Entrepreneurs of this type jointly put their efforts to build enterprise pooling together their own resources. They actively participate in managing the daily routine of the business concern. As such, the business houses or the firms

which are managed by the active partners become more successful in their operation.

3. Inventors: These entrepreneurs primarily involve themselves in Research and Development (R and D) activities. They are creative in character and feel happy in inventing new products, technologies and methods of production

4. Challengers; Entrepreneurs of this type take challenges to establish business venture as mark of achievement. They keep on improving their standard and face boldly the odds and adversities that come in their way. They use their business acumen and talent to convert the odds into opportunities thereby making profit. According to them, if there is no challenge in life, there is no charm in life. Challenges make them bold, and thus, they never hesitate to plunge themselves into uncertainties for earning profit.

5. Buyers (entrepreneurs): These entrepreneurs explore opportunities to purchase the existing units which may be seized or are in running condition. If the units they purchase are sick they turn them around using their experiences, expertise and business acumen. By purchasing these units they make themselves free from the hassles of building infrastructures and other facilities.

6. Life timers: These entrepreneurs believe that business is the part and parcel of their life. They take up the business to reunite successfully as a matter of ego satisfaction. They have a strong desire for taking personal responsibility. Family enterprises which thrive due to high personal skill are included under this category.

Role of an Entrepreneur in Economic Development (Need and Scope)

The entrepreneur who is a business leader looks for ideas and puts them into effect in fostering economic growth and development. Entrepreneurship is one of the most important inputs in the economic development of a country. The entrepreneur acts as a trigger head to give spark to economic activities by his entrepreneurial decisions. He plays a pivotal role not only in the development of industrial sector of a country but also in the development of farm and service sector. The major roles played by an entrepreneur in the economic development of an economy are discussed in a systematic and orderly manner as follows.

1. Promotes Capital Formation

Entrepreneurs promote capital formation by mobilizing the idle savings of public. They employ their own as well as borrowed resources for setting up their enterprises. Such type of entrepreneurial activities leads to value addition and creation of wealth, which is very essential for the industrial and economic development of the country.

2. Creates Large-Scale Employment Opportunities

Entrepreneurs provide immediate large-scale employment to the unemployed which is a chronic problem of underdeveloped nations. With the setting up of more and more units by entrepreneurs, both on small and large-scale numerous job opportunities are created for others. As time passes, these enterprises grow, providing direct and indirect employment opportunities to many more. In this way, entrepreneurs play an effective role in reducing the problem of unemployment in the country which in turn clears the path towards economic development of the nation.

3. Promotes Balanced Regional Development

Entrepreneurs help to remove regional disparities through setting up of industries in less developed and backward areas. The growth of industries and business in these

areas lead to a large number of public benefits like road transport, health, education, entertainment, etc. Setting up of more industries leads to more development of backward regions and thereby promotes balanced regional development.

4. Reduces Concentration of Economic Power

Economic power is the natural outcome of industrial and business activity. Industrial development normally leads to concentration of economic power in the hands of a few individuals, which results in the growth of monopolies. In order to redress this problem a large number of entrepreneurs need to be developed, which will help reduce the concentration of economic power amongst the population.

5. Wealth Creation and Distribution

It stimulates equitable redistribution of wealth and income in the interest of the country to more people and geographic areas, thus giving benefits to larger sections of the society. Entrepreneurial activities also generate more activities and give a multiplier effect in the economy.

6. Increasing Gross National Product and Per Capita Income

Entrepreneurs are always on the lookout for opportunities. They explore and exploit opportunities,, encourage effective resource mobilization of capital and skill, bring in new products and services and develops markets for growth of the economy. In this way, they help increasing gross national product as well as per capita income of the people in a country. Increase in gross national product and per capita income of the people in a country, is a sign of economic growth.

7. Improvement in the Standard of Living

Increase in the standard of living of the people is a characteristic feature of economic development of the country. Entrepreneurs play a key role in increasing the standard of living of the people by adopting latest innovations in the production of wide variety of goods and services in large scale that too at a lower cost. This enables the people to avail better quality goods at lower prices, which results in the improvement of their standard of living.

8. Promotes Country's Export Trade

Entrepreneurs help in promoting a country's export-trade, which is an important ingredient of economic development. They produce goods and services in large scale for the purpose earning huge amount of foreign exchange from export in order to combat the import dues requirement. Hence import substitution and export promotion ensure economic independence and development.

9. Induces Backward and Forward Linkages

Entrepreneurs like to work in an environment of change and try to maximize profits by innovation. When an enterprise is established in accordance with the changing technology, it induces backward and forward linkages, which stimulate the process of economic development in the country.

10. Facilitates Overall Development

Entrepreneurs act as catalytic agent for change, which results in chain reaction. Once an enterprise is established, the process of industrialization is set in motion. This unit will generate demand for various types of units required by it and there will be so many other units which require the output of this unit. This leads to overall development of an area due to increase in demand and setting up of more and more units. In this way, the entrepreneurs multiply their entrepreneurial activities, thus creating an environment of enthusiasm and conveying an impetus for overall development of the area.

Difference between an Entrepreneur and a Manager

Basis of Difference	Entrepreneur	Manager
1. Motive	The main motive of an entrepreneur is to start a venture by setting up an enterprise.	But, the main motive of a manager is to render his services in an enterprise already set up by someone else i.e., entrepreneur.
2. Status	An entrepreneur is the owner of the enterprise.	A manager is the servant in the enterprise owned by the entrepreneur.
3. Risk Bearing	An entrepreneur being the owner of the enterprise assumes all risks and uncertainty involved in running the enterprise.	A manager as a servant does not bear any risk involved in the enterprise.
4. Rewards	The reward an entrepreneur gets for bearing risks involved in the enterprise is profit which is highly uncertain.	A manager gets salary as reward for the services rendered by him in the enterprise. Salary of a manager is certain and fixed.
5. Innovation	Entrepreneur himself thinks over what and how to produce goods to meet the changing demands of the customers. Hence, he acts as an innovator also called a 'change agent'.	A manager simply executes the plans prepared by the entrepreneur. Thus, a manager simply translates the entrepreneur's ideas into practice.
6. Qualifications	An entrepreneur needs to possess qualities and qualifications like high achievement motive, originality in thinking, foresight, risk-bearing ability and so on.	On the contrary, a manager needs to possess distinct qualifications in terms of sound knowledge in management theory and practice.
7. Focus	An entrepreneur is someone who is concerned primarily with the necessary components to start up a business.	A manager is typically concerned with sustainability, and has to focus on what can be done within the framework of what he has been given to work with in an existing enterprise.
8. Growth	An entrepreneur begins with the idea of the business from its inception and its potential for growth in the long run. An analysis of the market and available resources in relation to the original idea plays a primary role in his business decisions.	A business manager is focused on engendering growth based on available resources. A manager must get employees to perform at optimal levels, and must make use of non-human resources to create additional growth beyond basic sustainability.
9. Objective	Entrepreneur's objective is to innovate and create and he acts as a change agent.	Manager's objective is to supervise and create routines. He implements the Entrepreneur's plans and ideas.

Difference between Entrepreneur and Intrapreneur

Entrepreneur	Intrapreneur
An entrepreneur is independent in his operations.	An intrapreneur is dependent on the entrepreneur i.e. the owner.
An entrepreneur himself raises funds required for the enterprise.	The Intrapreneur does not raise funds.

Entrepreneur bears the risk involved in the business.	An intrapreneur does not fully bear the risk involved in the enterprise.
An entrepreneur operates from outside.	On the contrary,an intrapreneur operates from within the organization itself.
An entrepreneur begins his business with a newly set up enterprise.	An intrapreneur sets up his enterprise after working someone else's organization.
As an entrepreneur establishes new business, so he does not possess any experience over the business.	An intrapreneur establishes his business after gathering experiences through working in the other organization.
Entrepreneurs may find it difficult to get resources	Intrapreneurs have their resources readily available to them.
Entrepreneurs are found anywhere their vision takes them.	Intrapreneurs work within the confines of an organization.
Entrepreneurs know the business on a macro scale.	Intrapreneurs are highly skilled and specialized.

Entrepreneur Vs. Entrepreneurship

Entrepreneur	Entrepreneurship
Entrepreneur is a person	Entrepreneurship is a process
Entrepreneur is an organizer	Entrepreneurship is an organization
Entrepreneur is an innovator	Entrepreneurship is an innovation
Entrepreneur is a risk bearer	Entrepreneurship is risk bearing
Entrepreneur is a motivator	Entrepreneurship is motivation
Entrepreneur is a creator	Entrepreneurship is a creation
Entrepreneur is a visualizer	Entrepreneurship is a vision
Entrepreneur is a leader	Entrepreneurship is leadership
Entrepreneur is an imitator	Entrepreneurship is an imitation

Chapter -2

Entrepreneurship Development Programme (EDP)

EDP may be defined as “a programme designed to help an individual in strengthening his entrepreneurial motive and in acquiring skills and capabilities necessary for playing his entrepreneurial role effectively”

Stages of Entrepreneurial development programme

EDP consists of three stages

- (1)Initial or Pre-training Stage
- (2)Training or Development stage
- (3)Post-training or Follow-up stage

1. Initial or pre-training stage

This stage includes the activities and the preparation required to launch the training programme. Thus, it involves the identification and selection of potential entrepreneurs and providing initial motivation to them. The main activities are

- Creation of Infrastructure for training.
- Preparation of training syllabus.
- Tie up of guest faculties
- Arrangement for inauguration of the programme
- Designing tools and techniques for selecting the trainees
- Formation of selection committee
- Publicity campaign for the programme
- Development of Application form

2. Training or development stage

In this stage the training programme is implemented to develop motivation and skills among the participants. The training of potential entrepreneurs covers special inputs such as, behavioural inputs (achievement motivation) and business opportunity guidance, information and technical inputs and managerial inputs. The trainers have to judge how much, and how far the trainees have moved in their entrepreneurial pursuits.

Most of the business inputs can be given through management/ professional consultants, practitioners, business and industrial executives, experts of state industrial agencies, bankers, technical consultancy institutions and small-scale entrepreneurs. In-house care teams can also be formed from the group of trainers or experts where resource persons from industry and trade are not locally available.

Field trips to selected industrial units can also be arranged to expose trainees to actual operating conditions.

3. Post-training or follow-up stage

This stage involves assessment to judge how far the objectives of the programme have been achieved. Each group of entrepreneurs in an entrepreneurship programme can be looked after by the entrepreneur trainer - motivator. This involves

- Follow-up on loan application for finance,
- Facilitating infrastructure such as land, factory shed, power, road, etc and finally,
- Trouble shooting.

Components of EDP: Any EDP, even to achieve a modicum of success should encompass and integrate the following components

1. Selection of potential entrepreneurs
2. Training
3. Support systems
4. Production process, and
5. Monitoring and follow-up

1. Selection of Potential Entrepreneurs

For an EDP the first and foremost step is the selection of candidates. While selecting candidates due recognition is given to their family background, suitability to the trade chosen and entrepreneurial skills they possess.

Selecting and motivating an unsuitable man to go into an independent business is a disservice to him as failure in business means loss of prestige, social standing and a set-back for life. Therefore, every care should be taken to identify the right person for the right job.

Selection of potential entrepreneurs has two essential components:

- Identification of entrepreneurial traits in the potential entrepreneurs

- Identification of a suitable and viable enterprise

2. Training: Once the selection of potential entrepreneur is over, they have to be equipped with required skills, e.g. managerial, human, relations and technical skills to start the enterprise. In an Entrepreneurial Development Programme, there are varieties of candidates with a different backgrounds and qualities; to be trained. The various training, inputs that are required to facilitate and speed up the process of becoming entrepreneurs are the following:

- Technical knowledge and skills,
- Human resource development
- Support systems and procedures
- Market survey
- Managerial skills
- Project preparation

3. Support systems: After equipping himself with the requisite skills the young entrepreneur is now ready to set up his enterprise. He has to obtain the help and support from many agencies. These are the support system which is an important part of EDP. To accelerate growth of entrepreneurship, it is necessary to develop various support systems. The co-ordinating agencies need to ensure that these institutions such as credit, input, marketing, services and information systems are involved in the EDP right from the selection, all throughout.

4. Production: After the unit is set up, production starts. Here the management and technological skills acquired in the training come into play. Once the production starts the entrepreneur has to initiate supply of products. For that he has to choose a suitable marketing channel. Thus, production and marketing are the most crucial for the success of an enterprise.

5. Monitoring and follow-up: Continuous monitoring is an essential ingredient of EDP. Through proper monitoring the problems will be identified and solved. Providing guidance from time to time is an integral part of monitoring. This would keep the check on EDP.

Functions of an entrepreneur

The functions of an entrepreneur is classified in to

1. Entrepreneurial Functions
2. Managerial Functions
3. Promotional Functions
4. Commercial Functions

I. Entrepreneurial Functions:

The major entrepreneurial functions include risk bearing and innovation.

A) Risk bearing: A new business always involves risk because one invests money to get profits shortly. As a small business owner, you may have to compete with big companies, shortage of raw material, change in customer preferences, sudden unexpected drawbacks and so on. But interestingly, successful entrepreneurs don't believe in taking a risk, because for them it's never been a risk. For them, this is just a calculated and well-planned challenge that they can achieve.

B) Innovation: Innovation and entrepreneurship walk hand in hand in building a successful commercial venture. Entrepreneurs are highly responsible for innovation in existing markets and the invention of entirely new products, services, and even new markets. The purpose of innovation is to constantly grow an organization through new products, more productive techniques, efficient processes, and flexible business models. Most importantly, innovation helps to create a monopoly in the market by providing a competitive advantage.

II. Managerial Functions:

In simple words, management is getting things working with and through others. The management functions performed by entrepreneur are classified into the following five types:

A. Planning: Planning is the basic managerial function of an entrepreneur. It helps in determining the course of action for achieving various entrepreneurial objectives like what to do when to do, how to do and who will do a particular task.

B. Organising: The organizing function of an entrepreneur refers to bringing together the men, material, machine, money, etc. to execute the plans. The entrepreneur assembles and organizes the above mentioned different organs of an enterprise in such a way that these combined start functioning as one, i.e., enterprise. Thus, organizing function of an entrepreneur ultimately provides a mechanism for purposive, integrated and co-operative action by many people in a joint and organized effort to implement a business plan.

C. Staffing: Staffing involves human resource planning and human resource management. Thus, staffing function of an entrepreneur includes preparing inventory of personnel available, requirement of personnel, sources of manpower recruitment, their selection, remuneration, training and development and periodic appraisal of personnel working in the enterprise.

D. Directing: The functions like planning, organizing, and staffing are merely preparations for setting up a business enterprise. The directing function of entrepreneur actually starts the setting up of enterprise. Under the directing function, the entrepreneur guides, counsels, teaches, stimulates and activates his/ her employees to work efficiently to accomplish the set objectives.

E. Controlling: Controlling is the last management function performed by the entrepreneur. In simple words, controlling means to see whether the activities have been performed in conformity with the plans or not. Thus, controlling is comparison of actual performance with the target or standard performance and identification of variation between the two, if any, and taking corrective measures so that the target is accomplished.

III. Promotional Functions:

4. Identification and Selection of Business Idea: Every intending entrepreneur wants to start the most profitable and rewarding project. The selection of the most suitable business project involves a process. The intending entrepreneur, based on his /her knowledge, experience, and information gathered from friends and relatives, generates some possible business ideas which can be examined and pursued as a business enterprise.

This process is also described as ‘opportunity scanning and identification’. Then, the generated ideas are analysed in terms of costs and benefits associated with them. Having made cost-benefit analysis of all the ideas, the most beneficial idea is finally selected to be pursued as business enterprise.

5. Preparation of Business Plan or Project Report: The entrepreneur prepares a statement called ‘business plan’ or ‘project report’ of what he / she proposes to take up. In other words, business plan is a well evolved course of action devised by entrepreneur to achieve the specified objectives within a specified period of time.

6. Financial Planning: The financial planning function of an entrepreneur is critical to the success of any company. It provides the Business Plan with control, by confirming that the goals set are attainable. However, financial planning is the job of determining how a business will afford to accomplish its strategic goals and objectives. A financial plan describes each of the activities, resources, equipment, and materials that are needed to achieve objectives.

IV. Commercial function

1. Production / Manufacturing: Once the enterprise is finally established, it starts producing goods or offering services, whichever is the case. Production function includes decisions relating to the selection of factory site, design and layout, types of products to be produced, research and development, and design of the product. The ancillary activities include production planning and control, maintenance and repair, purchasing, store-keeping, and material handling. The effective performance of production function, to a large extent, depends on the proper production planning and control.

2. Marketing: All production is basically meant for marketing. Marketing is the performance of those business activities that direct the flow of goods and services from producer to consumer or user. Thus, marketing essentially begins and ends with the customers. It is important to note that marketing is not just selling. In fact, marketing includes much more than selling. Selling is the last function in marketing activities.

The examples of marketing activities are market or consumer research, product planning and development, standardization, packaging, pricing, storage, promotional activities, distribution channel, etc. The success of marketing function is linked with an appropriate ‘marketing mix’. Traditionally, marketing mix referred to 4 Ps, namely, product, price, promotion, and physical distribution. Of late, 3 more Ps namely, packaging, people, and process are also added to ‘marketing mix’.

3. Accounting: The main objective of any business enterprise is to earn profits and create wealth. Whether the business is fulfilling its objective or not is ascertained through accounting. What is accounting? According to the American Institute of Certified Public Accountants, “Accounting is the art of recording, classifying and summarizing in a

significant manner and, in terms of money, transactions and events which are, in part at least, of a financial character and interpreting the results thereof.”

Thus, accounting involves a process consisting of the following four stages:

1. Recording the Transactions
2. Classifying the Transactions
3. Summarising the Transactions
4. Preparing the Final Accounts
5. Analysing and Interpreting the Results.

The Profit & Loss Account is prepared for ascertaining whether the business earned profit or incurred loss during a particular period of time also called ‘accounting year’. The Balance Sheet is prepared to know the financial position of business during the accounting period. Hence, the Balance Sheet is also called ‘Position Statement.’

Factors Responsible Entrepreneurship

Entrepreneurship is a complex phenomenon influenced by the interplay of a wide variety of factors. The entrepreneurial activity at any time is dependent upon a complex and varying combination of economic, social, political, psychological and other factors. These factors may have been both positive and negative influences on the emergence of entrepreneurship. Positive influences constitute facilitative and conducive conclusive for the emergence of entrepreneurship whereas negative influences create inhibiting milieu to the emergence of entrepreneurship. Following factors contribute to the success of entrepreneurship:



Fig-2 Factors responsible for entrepreneurship development

1. Personality Factors: Personality traits such as inner desire for control of their activities, tolerance for risk, high level of tolerance to function in adverse situations and background experiences such as the family environment, level of education, age and work history tolerance for ambiguity are important personal characteristics that affect entrepreneurship. Individuals who are desirous of working independently; willing to work for long hours and assume risk; are self-confident and hard-working are likely to be more successful as entrepreneurs than those who do not possess these qualities

Personal factors, becoming core competencies of entrepreneurs, include:

- Initiative (does things before being asked for)
- Proactive (identification and utilization of opportunities)
- Perseverance (working against all odds to overcome obstacles and never complacent with success)
- Problem-solver (conceives new ideas and achieves innovative solutions)
- Persuasion (to customers and financiers for patronization of his business and develops & maintains relationships)
- Self-confidence (takes and sticks to his decisions)
- Self-critical (learning from his mistakes and experiences of others)
- A Planner (collects information, prepares a plan, and monitors performance)
- Risk-taker (the basic quality).

2. Environmental factors: These factors relate to the conditions in which an entrepreneur has to work. If the environment that an individual is working in is unsatisfactory, that is, not conducive to his growth needs, it is likely that the individual will quit his job and start his own business as an entrepreneur. Unsatisfied personal needs for growth and achievement in employment conditions results in successful entrepreneurship.

3. Political: Some researchers felt that the growth of entrepreneurship cannot be explained fully unless the political set-up of a country is taken into consideration. Political stability in a country is absolutely essential for smooth economic activity. Frequent political protests, strikes, etc. hinder economic activity and entrepreneurship. Unfair trade practices, irrational monetary and fiscal policies, etc. are a roadblock to the growth of entrepreneurship

4. Socio-Economic Factors: The entrepreneurial activity at any time and place is governed by varying combination of socio-economic factors. The empirical studies have identified the following socioeconomic factors:

- Cast/Religion
- Family Background
- Level of Education
- Level of Perception
- Legitimacy of entrepreneurship
- Migratory character
- Social mobility
- Ambition/Motivation

Chapter – 4

SWOT Analysis

Introduction and meaning

The process of liberalization and economic reforms, while creating tremendous opportunities for growth of many industries have also thrown up new challenges to the industries. Building competitive strengths, technology up gradation and quality improvement are the vital issues that need to be looked into, to build capabilities, to withstand emerging pressures and ensure sustained growth.

The 21st century, would ensure a bright future for industries only if a conscious and sincere effort is initiated for overcoming hardships faced. The entrepreneurs have to lay more emphasis on the quality of their production. The gospel truth is, 'Better quality and Better productivity'. Therefore, entrepreneurs have to devote sufficient attention on Research and Development. Innovation is the real step towards continued progress.

To innovate, an entrepreneur has to make a diagnosis of the current situation. The diagnosis of the current situation is done by conducting an Internal Analysis and External Analysis.

Analysis of External and Internal Environment together is called SWOT Analysis. SWOT Analysis refers to identifying the strengths, weaknesses, opportunities and threats of an organization.

SWOT Analysis is a tool, often used by organizations in planning its future. This tool can be explained in a simplified manner as follows:

S – Strengths	}	of the organization
W -Weaknesses		
O - Opportunities	}	of the environment
T – Threats		

The Internal Analysis of the organization will cover the organizational position with respect to different functional areas like production, finance, marketing, research & distribution and so on. More specifically, this may look into a company's sales volume, market share, profitability and so on. This will reveal its strength and weakness.

The External Analysis will do the necessary scanning of the business environment to identify any threat and opportunities posed on the company, its products or services. More specifically, this will include the industry performance, competitive activity and a review of the growth and decline of the user industries.

Strengths and weakness

Every business needs to evaluate its strengths and weaknesses periodically. The management or an outside consultant reviews the business's marketing, financial, manufacturing and organizational competencies. In examining its strengths and weaknesses

clearly, the business does not have to correct all of its weaknesses nor gloat about all of its strengths. They have to slowly overcome their weakness and convert it into its strength.

Some of the **strengths** of an organization are:

- Availability of necessary infrastructure
- Adequate production capacity
- Skilled manpower
- Good manufacturing practices, quality assurance and quality control
- Low cost of manufacture
- Facilities for product and process development
- Good location
- Wide distribution network
- Motivated staff
- Liquidity position
- Brand image
- Consistency in earning profits
- Good corporate image
- Efficient management
- Philosophy and human resource development

If an organization lacks any of these, it will obviously result into its weakness.

Let us now look at some of the **weaknesses** of an organization

- Rising cost of operations
- Growing union pressures
- Low level of motivation of staff
- Non-availability of raw material
- Scarcity of capital
- Weak credit worthiness
- Problem of under utilization of capacity
- Outdated technology
- Poor project planning
- Inadequate infrastructure
- Shortage of trained technicians
- Insufficient managerial expertise
- Unorganized nature of operations
- Lack of effective co-ordination
- Inadequate training in skills
- Feeble structure/poor organization
- Problems of delegation of authority

Opportunities and threats

An entrepreneur has to know the parts of the environment to monitor, if the business is to achieve its goals. A business has to monitor key macro environmental forces like demographic, economic, technological, political, legal, social and cultural factors, and, also significant micro environmental forces like customers, competitors, distribution channels, suppliers, etc. that will affect its ability to earn profits. The business unit should set up a marketing intelligence system to track trends and important developments. For each trends or development, management needs to identify the implied opportunities and threats.

An opportunity is an area of need in which a company can perform profitably.

Some of the opportunities of an organization are:

- Growing population
- Increase in disposable income
- Good monsoon
- Easy availability of money
- Availability of appropriate technology
- Favourable government policies
- Availability of different task environment like market information, distribution outlets and media.
- Presence of favourable cultural environment.

Some developments in the external environment represent threats. An environmental threat is a challenge posed by an unfavourable trend or development that would lead, in the absence of defensive marketing action, to sales or profit deterioration. Some of the **threats** of an organization are:

- Shortage of power, water, fuel
- Rejection by the market
- Recession
- Tough competition
- Political instability
- Fiscal policy resulting into increased taxes, duties, imports reservations, licensing
- Technological obsolescence
- Tight money market
- High cost of raising finance and cost of finance
- Resource crunch
- Difficulty in retaining technical experts
- Climatic changes
- Changing customer tastes and preferences
- Prolonged economic depressions

On completion of a SWOT Analysis, an organization can know 'where it stands'. Therefore, it can proceed to develop specific objectives and goals for the future.

Advantages of SWOT analysis

The advantages for conducting a SWOT Analysis for innovating are

- An entrepreneur can know in which field, there is demand, and, can venture into the respective field, keeping their strengths in mind.
- It helps in the development of new technology.
- An entrepreneur can make an analysis as to develop a completely new product, or to just change the existing product.
- There can be improvements brought about in the process of production.
- On the basis of information collected through SWOT analysis, the goals which the firm wants to achieve in future can be decided.
- Short term mission and long term mission of the organizations can be farmed.
- Alternatives can be selected and decided to exploit opportunities and to face threats in the environment.

- Priorities can be given to different goals and the courses of action to achieve the goals can be timed.
- Plans can be formalized for effective communication & implementation of plans.
- Major functions & sub-functions can be determined in achieving the objectives of the firm.
- Expansion of the range of services and benefits.
- The social, political, legal, economic, technological factors can be analysed.
- An analysis of the competitor's strategies can be made and their policies can be known.

Case study

To understand SWOT analysis better, let us look at a case study of **SWOT Analysis** conducted in a **five star Hotel in Ahmadabad:**

*The **strengths** of this five star Hotel are*

- 1) It has got more than 95 years of experience
- 2) It has hotels in different places in India
- 3) It has many heritage properties which adds to its charm and represents Indian culture
- 4) It has a few low budgeted hotels, which caters to the needs of middle class tourists
- 5) It has hotels not only in big cities but also in small cities which are of tourist importance

*The **weaknesses** are*

- 1) It has tough competition from rivals, and hence their concentration is diverted.
- 2) It has very few low budget hotels, which are of need today.
- 3) It has more than one hotel in one city, which is a waste of investment.

*Its **opportunities** are*

- 1) There is availability of government support in the form of land and financing of projects.
- 2) There is an increase in the tourist inflow in India, India is expecting to receive 2.4 million tourists, i.e., there will be lot of business.

*Its **threats** are*

- 1) Its competitors are also located near the hotel.
- 2) It has to face the threats of various resorts, which people are looking for now-a-days.
- 3) It also has threats from smaller hotels, which tourists prefer, because of cheaper rates and almost the same kind of hospitality.

Therefore, this hotel has to overcome its threats and weaknesses and concentrate more on its strengths and opportunities available.

Chapter – 5

Government schemes and incentives for promotion of Entrepreneurship and government policy on small and medium Enterprises

I. Government schemes and incentives for promotion of entrepreneurship: World over, micro and small enterprises (MSEs) are recognized as an important constituent of the national economies, contributing significantly to employment expansion and poverty alleviation. Recognizing the importance of micro and small enterprises, which constitute an important segment of Indian economy in terms of their contribution to country's industrial production, exports, employment and creation of entrepreneurial base, the Central and State Governments have been implementing several schemes and programmes for promotion and development of these enterprises.

1. Prime minister's employment generation programme (PMEGP): Government of India has approved the introduction of a new credit linked subsidy programme called Prime Minister's Employment Generation Programme (PMEGP) by merging the two schemes that were in operation till 31.03.2008 namely Prime Minister's Rojgar Yojana (PMRY) and Rural Employment Generation Programme (REGP) for generation of employment opportunities through establishment of micro enterprises in rural as well as urban areas. PMEGP will be a central sector scheme to be administered by the Ministry of Micro, Small and Medium Enterprises (MoMSME). The Scheme will be implemented by Khadi and Village Industries Commission (KVIC), a statutory organization under the administrative control of the Ministry of MSME as the single nodal agency at the National level. At the State level, the Scheme will be implemented through State KVIC Directorates, State Khadi and Village Industries Boards (KVIBs) and District Industries Centres (DICs) and banks. The Government subsidy under the Scheme will be routed by KVIC through the identified Banks for eventual distribution to the beneficiaries / entrepreneurs in their Bank accounts.

Objectives

1. To generate employment opportunities in rural as well as urban areas of the country through setting up of new self-employment ventures/projects/micro enterprises.
2. To bring together widely dispersed traditional artisans/ rural and urban unemployed youth and give them self-employment opportunities to the extent possible, at their place.
3. To provide continuous and sustainable employment to a large segment of traditional and prospective artisans and rural and urban unemployed youth in the country, so as to help arrest migration of rural youth to urban areas.
4. To increase the wage earning capacity of artisans and contribute to increase in the growth rate of rural and urban employment.

Eligibility Conditions of Beneficiaries

1. Any individual, above 18 years of age
2. There will be no income ceiling for assistance for setting up projects under PMEGP.
3. For setting up of project costing above Rs.10 lakh in the manufacturing sector and above Rs. 5 lakh in the business /service sector, the beneficiaries should possess at least VIII standard pass educational qualification.
4. Assistance under the Scheme is available only for new projects sanctioned specifically under the PMEGP.

5. Self Help Groups (including those belonging to BPL provided that they have not availed benefits under any other Scheme) are also eligible for assistance under PMEGP.
6. Institutions registered under Societies Registration Act, 1860;
7. Production Co-operative Societies, and
8. Charitable Trusts.
9. Existing Units (under PMRY, REGP or any other scheme of Government of India or State Government) and the units that have already availed Government Subsidy under any other scheme of Government of India or State Government are not eligible.

2. Market development assistance scheme for micro/ small Manufacturing enterprises/ small & micro exporters

The scheme offers funding for:

1. Participation by manufacturing Small & Micro Enterprises in International Trade Fairs/ Exhibitions under MSME India stall.
2. Sector specific market studies by Industry Associations/ Export Promotion Councils/ Federation of Indian Export Organisation.
3. Initiating/ contesting anti-dumping cases by SSI Associations and
4. Reimbursement of 75% of one time registration fee and 75% of annual fees paid to GSI by Small & Micro units for the first three years.

Objectives:

1. To encourage Small & Micro exporters in their efforts at tapping and developing overseas markets.
2. To increase participation of representatives of small/ micro manufacturing Enterprises under MSME India stall at International Trade Fairs/ Exhibitions.
3. To enhance export from the small/ micro manufacturing enterprises
4. To popularize the adoption of Bar Coding on a large scale.

3. Scheme for assistance to training institutions: The Scheme envisages financial assistance for establishment of new institutions (EDIs), strengthening the infrastructure of the existing EDIs and for supporting entrepreneurship and skill development activities. The main objectives of the scheme are development of indigenous entrepreneurship from all walks of life for developing new micro and small enterprises, enlarging the entrepreneurial base and encouraging self-employment in rural as well as urban areas, by providing training to first generation entrepreneurs and assisting them in setting up of enterprises. The assistance shall be provided to these training institutes in the form of capital grant for creation/strengthening of infrastructure.

4. Rajiv Gandhi Udyami Mitra Yojana: A Scheme of “Promotion and Handholding of Micro and Small Enterprises”. Here are still wide spread variations in the success rate, in terms of actual setting up and successful running of enterprises, by the EDP/SDP/ESDP trained entrepreneurs. It has been observed that new entrepreneurs generally face difficulties in – availing full benefits under available schemes of the Governments / financial institutions, completing and complying with various formalities and legal requirements under various laws/regulations, in selection of appropriate technology, tie-up with buyers and sellers etc. In order to bridge the gap between the aspirations of the potential entrepreneurs and the ground realities, there is a need to support and nurture the potential first generation entrepreneurs by giving them handholding support during the initial stages of setting up and managing their enterprises.

Objective:

The objective of **Rajiv Gandhi Udyami Mitra Yojana (RGUMY)** is to provide handholding support and assistance to the potential first generation entrepreneurs, who have already successfully completed EDP/SDP/ESDP or vocational training from ITIs, through the selected lead agencies i.e. '**Udyami Mitras**', in the establishment and management of the new enterprise, in dealing with various procedural and legal hurdles and in completion of various formalities required for setting up and running of the enterprise. Under RGUMY, financial assistance would be provided to the selected lead agencies i.e. **Udyami Mitras** for rendering assistance and handholding support to the potential first generation entrepreneurs.

Role and Responsibilities of Udyami Mitras

The selected lead agencies i.e. Udyami Mitras would be expected to render following services:

1. Networking, coordinating and follow up with various Government departments/ agencies/ organizations and regulatory agencies on the one hand and with support agencies like Banks/financial institutions, District Industries Centers (DICs), technology providers, infrastructure providers on the other hand, to help the first generation entrepreneurs in setting up their enterprise.
2. Once the enterprise has been successfully set up, the Udyami Mitras would also monitor and follow up on the functioning of the enterprise for a further period of minimum 6 months and provide help in overcoming various managerial, financial and operational problems.

7. Credit link capital subsidy scheme for technology up gradation: The Scheme was launched in October, 2000 and revised in 29.09.2005. The revised scheme aims at facilitating Technology Upgradation of Micro and Small Enterprises by providing 15% capital subsidy (12% prior to 2005) on institutional finance availed by them for induction of well established and improved technology in approved sub-sectors/products. The admissible capital subsidy under the revised scheme is calculated with reference to purchase price of Plant and Machinery. Maximum limit of eligible loan for calculation of subsidy under the revised scheme is also been raised Rs. 40 lakhs to Rs. 100 lakh in. 29-09.2005. The scheme has been continues 10th five year plan to 11th five year plan. Under the scheme approximately 7396 units have availed subsidy of Rs. 315.21 crore up to August, 2009.

8. Micro & Small enterprises-cluster development programme\ (MSE-CDP): Office of the Development Commissioner (MSME) launched Micro and Small Enterprises Cluster Development Programme (MSE-CDP) for holistic development for selected MSEs Clusters through value chain and supply chain management on cooperative basis. Designed on need assessment, the major component of the scheme are Technology Upgradation, Quality Upgradation and Certification, Credit Facilitation, Marketing Support, including exposure to the global markets and Collective Capacity Building of the cluster units with a view to enabling them to ultimately operate as collectives of their own. Establishment and operation of Common Facility Centres (CFCs), organized procurement and marketing continuous skill and technology upgradation are the deliverables of any intervention under MSE-CDP. Recently, support for infrastructural upgradation for resurgence of the clusters has also been included in the MSE-CDP.

Objectives of MSE-CDP:

- Key Strategy for enhancing productivity/Competitiveness of small enterprises.
- To facilitate economies of scale
- For integrated and focused development of MSEs.

- Interventions for large number of units with higher gains at lower cost.

9. Credit guarantee fund scheme for micro and small enterprises: The Credit Guarantee Fund Scheme for Micro and Small Enterprises (CGMSE) was launched by the Government of India to make available collateral-free credit to the micro and small enterprise sector. Both the existing and the new enterprises are eligible to be covered under the scheme. The Ministry of Micro, Small and Medium Enterprises and Small Industries Development Bank of India (SIDBI), established a Trust named Credit Guarantee Fund Trust for Micro and Small Enterprises (CGTMSE) to implement the Credit Guarantee Fund Scheme for Micro and Small Enterprises. The scheme was formally launched on August 30, 2000 and is operational with effect from 1st January 2000. The corpus of CGTMSE is being contributed by the Government and SIDBI in the ratio of 4:1 respectively

10. National award scheme: The Micro, Small & Medium Enterprises (MSMEs) in India have seen a vast development in the last five decades. The MSMEs have registered tremendous growth as also progress in terms of quality production, exports, innovation, product development and import substitution, very much beyond the expected objectives of setting up MSMEs by the planners of industrial production base in the country. Entrepreneurial efforts have made it possible to produce number of items, which hitherto were imported. In quite a few cases new variants so produced are having additional attributes than their original versions and are capable of solving a multitude of user problems. This all has become possible owing to the ambitions and visionary spirit of entrepreneurs of MSMEs.

Objective

The ministry of Micro, Small and Medium Enterprises with a view to recognizing the efforts and contribution of MSMEs gives National Award annually to selected entrepreneurs and enterprises under the scheme of National Award.

11. Scheme to support 5 selected universities / colleges to run 1200 entrepreneurship clubs.

The scheme is to support 5 universities to run Entrepreneurship Clubs (one each from Northern, Western, Eastern, Southern and North East region). Each university will have to run 240 clubs per year and each club may have a membership of 50 entrepreneurs. In a period of 5 years, 3 lakh entrepreneurs are to be benefited in all.

Objectives:

The scheme has been devised to encourage entrepreneurs to run self-employment ventures of Micro or Small Enterprises. Moreover, this will be a very important scheme bringing the entrepreneurs, universities and MSME-Development Institutes (MSME-DI) together.

In addition, this will create a base to entrepreneurs for coming together to solve their common problems a shift from Lobbying Mode to Facilitation Mode, giving hard intervention in the form of technology and soft intervention like arranging workshops, seminars, guidelines to obtain ISO certification, ISI Marks, participation in Trade Fairs, implementation of Quality Management Tools.

12. Schemes for women entrepreneurs:

A. Mahila Udyami Yojana (MUY): IDBI has set up special fund under this scheme with corpus fund of Rs.5Crore to provide seed capital assistance to the women entrepreneurs intending to start projects in SSI sector. This scheme is implemented by SIDBI. 51% of equity should be managed by women.

- Seed capital is provided as soft loan- 15% of fixed cost without insisting security.
- Promoter should contribute atleast 10% of fixed cost.
- Repayment is for 10 years with moratorium period of 5 yrs.
- Debt equity ratio should be 3:1

B. SBI Stree Sakthi Package: Under this EDPS are exclusively designed and conducted for women entrepreneurs .Rs.25000/- is provided without collateral security.

C. Priya darshini yojana: It is implemented by Bank of India. Financial assistance is provided to women entrepreneurs who take up small business, retail traders, transport (auto rickshaws), professional and self employed, and who take up allied agricultural activities.

- Max. loan is upto 2 lakhs for term loan and 1 lakh for working capital.
- Assets acquired with finance are hypothecated as security.
- Repayment period is 3-5 years.
- Margin money is 20% depending on type of activity.

II. Government policies on entrepreneurship

From the announcement of first Industrial Policy Resolution (IPR) step by step approach was followed & various policies were implemented during past 5 decades.

1. IPR 1948 – Aimed at Post independent national reconstruction through industrialization. Envisaged the importance of cottage & small enterprises for employment creation and utilization of local resources and skills. **The main thrust in small scale sector was centered round Protection.**

2. IPR 1956 – Provided a clear emphatic policy and incentive support to small scale & cottage industries. **It aimed at Protection plus Development of small industrial sector.**

3. IPR 1977 – Establishment of DICs focusing on regional growth of industries & utilization of local resources and skill. IDBI & KVIB are established & small scale sector was given priority. This policy focused on promotion. Thus **Protection, Development plus promotion became its focus.**

4. IPR 1980- Thrust areas were Industrial infrastructure, higher productivity promotion of agro based industries, consumer protection & quality control. For generation of wage employment & **development of entrepreneurial spirit among people small scale sector was again treated most important.**

5. IPR1990- Policy of economic liberalization & Introduce simple procedures, formalities, rules & regulations. More emphasis to women & youth was given under entrepreneurship. **SIDBI was established to assist entrepreneurs in the small scale sector.**

6. IPR1991- The basic thrust of this policy revaluation of this policy was to simplify regulations and procedures by delicensing, deregulating and decontrolling. In this policy were exempted licensing of SSIs and initiate market **promotion of products was emphasized through cooperatives, public institutions and other marketing agencies and corporations.**

7. IPR-2000- This policy actually a comprehensive policy package for SSIs and Tiny sectors. Main focus of this policy was exemption of excise duty limit up to Rs 1 crore to improve the competitiveness among the SSIs.

8. IPR – 2001-02: Market development assistance scheme was launched exclusively for SSIs. Four UNIDO Assisted projects were commissioned during this policy under the cluster development programme.

9. IPR-2003 -04: seventy three manufacturing items reserved exclusive for SSIs. With this the promotional package for small enterprises was initiated in this policy. RBI raised the composite loan limit for SSIs.

10. IPR- 2005-06: In this policy small and medium enterprises were recognised in the service sector. The policy emphasis on cluster development model not only to promote manufacturing but also to renew industrial towns and build new industrial townships. The model was being implemented in nine sectors including Khadi and Village Industries, Handlooms, Handcrafts, Textiles, Agricultural products and medicinal plants.

III. Institutional support to Entrepreneurship development

The institutional providing assistance to small scale industries are broadly classified into three categories.

- National Level Institutions
- State level Institutions
- Fund-Based Institutions

1. National Level institutions:

A) Small Scale Industries Board (SSIB) -1954: It Provides a forum to its members for interaction to facilitate co-operation and inter-institutional linkages and to render advice to the government on various policy matters for development of SSIs.

B) Small Industry Development Organisation (SIDO) -1954 : This Institution assisting the ministry in formulating, coordinating, implementing and monitoring policies and programmes for the promotion and development of SSIs.

C) National Small Industries Corporation (NSIC) Limited -1955: This institution was set up with a view to promoting, aiding and fostering the growth of SSIs on commercial aspects. This assists SSIs through the following schemes:

1. Composite term loan scheme
2. Hire purchase scheme
3. Equipment leasing
4. Working capital finance
5. Raw material assistance
6. Marketing support programme
7. Integrated marketing supported
8. Technology upgradation

D) The Khadi and Village Industry Commission (KVIC) -1957: The KVIC is supposed to do the planning, promotion organisation, and implementation of programmes for the development of kahadi and other village industries in the rural areas in coordination with other agencies engaged in rural development wherever necessary.

National Level Training Institutions:

- National Institute of Small Industry Extension Training (NISIET) at Hyderabad
- National institute for Entrepreneurship and small business development (NIESBUD) at New Delhi

- Indian Institute of Entrepreneurship (IIE) at Guwahati

2. State level institutions

A) State Small Industrial Development Corporation (SSIDCs)-1956: It was set up to promote industrial development in their respective states. It provides the term finance to all small, medium and large industrial enterprises. It promotes collaborations with private entrepreneurs to set up industrial ventures. IDBI bank was implemented under this scheme to promote the seed capital at the state level.

B) State Directorate of industries (SDIs): Primary responsibility of this institution is to implementation of policies and programmes at state level.

The main function of SDIs:

- Registration of small scale units
- Providing financial assistance
- Distributing scarce and indigenous raw materials to industrial units
- Granting essential certificates for import of raw material etc.

C) District Industries centres (DICs) – 1978: It was launched mainly to promote cottage and small scale industries widely dispersed in village and small towns. It provides all the services required for small and village enterprises under one roof.

3. Fund based institutions:

A) Small Industries Development Bank of India (SIDBI) - 1990: The SIDBI operates different programmes and schemes through five regional and 33 branch offices by financing small scale sector in channelized through two routes – direct and indirect.

B) Commercial banks: The SSIs are basically requiring two types of finance long term loans and working capital. All the commercial banks with their extensive network of branches operating nationwide primary channels for working capital.

C) State financial corporations (SFCs) – 1948: it provide financial assistance only large sized industries. It provides long-term finance to industrial enterprises having sole proprietary, partnership, company and co-operative society form of business organisations.

Chapter -6

I. Agri – entrepreneurship concept, need and scope

Amidst the changing paradigms and demanding global structure, India, In order to remain a front-runner needs to primarily focus on the agriculture sector, the backbone of the economy. This specialization will develop agri-preneurs with distinct traits and skills to exploit opportunities galore in the field of agriculture. Among the various strategies to promote planned growth in this sector, focus on promoting viable enterprises will certainly help exploit its operational efficiency to the hilt. Agriculture is the mainstay of the Indian economy because of its high share in employment and livelihood creation. It supports more than half a billion people providing employment to 52 per cent of the workforce. Its contribution to the nation's GDP is about 18.5 per cent in 2006-07. It is also an important source of raw material and demand for many industrial products, particularly fertilizers, pesticides, agricultural implements and a variety of consumer goods.

Agripreneurship: It is defined as generally sustainable, community oriented, directly marketed agriculture. Sustainable agriculture denotes a holistic, systems oriented approach to farming that focuses on the interrelationships of social, economic and environmental process.

Need for Agripreneurship:

- Increasing demand of organic and quality food both in India and abroad
- Competitive advantages for many primary production activities in agriculture. Ex: Rainfed farming, livestock and wild craft production is through low cost production technologies only.
- Private sector is willing to enter in to agribusiness at all levels of operation.
- To reduce malnutrition as majority of women and children in the country are malnourished.

Scope for entrepreneurship development in Agriculture:

- Technologies that reduce the cost of production and increase the benefit of the farmers will open new opportunities for Agri-entrepreneurship.
- New technologies that are simple and time saving and keep away farmers from drudgery of labour will also provide opportunity for entrepreneurship in agriculture.
- Technologies that provide social and psychological benefits to farmers will also provide opportunity for entrepreneurship in agriculture.

On farm Activities:

Depending upon the geographical situation and resources availability, the possible areas of entrepreneurship in agriculture are:

(1) Agro produce processing units: These units do not manufacture any new product. They merely process the agriculture produce. e.g., Rice mills, Dal mills, Decorticating mills etc.

(2) Agro produce manufacturing units: These units produce entirely new products based on the agricultural produce as the main raw material. e.g., Sugar factories, Bakery, Strawboard units etc.

(3) Agro-inputs manufacturing units: These units produce goods either for mechanization of agriculture or for increasing productivity. E.g., Fertilizer manufacturing plants, insecticides production units, food processing units, agricultural implements etc.

(4) Agro-service centers: These include the workshops and service centers for repairing and serving the agricultural implements used in agriculture.

Off-Farm Vocations:

Entrepreneurship development is also profitable in different off-farm activities like cloth stitching, knitting, embroidery, cloth printing (tie and dye), carpet making, dari making, envelope and plastic bag making, agarbatti making, candle making, rope making, basket

making, bamboo-work, distilled water making, oil extraction, chalk making, biogas mechanic, electric wiring, mason, carpentry, black smithy, solar mechanic, electrician, auto mechanic, welding, pottery, and other rural crafts.

The possible areas of entrepreneurship in allied activities of agriculture

This includes the activities like, Dairying, Sericulture, Goat rearing, Rabbit rearing, Floriculture, Fisheries, Shrimp farming, Poultry farming, Sheep rearing, Vegetable cultivation, Nursery farming, Grafting/budding, Farm forestry, etc...

II. Agriclinic and Agribusiness centre

In order to assess demand for and acceptability of private extension through agriculture graduates, from farmers (as clients) and agriculture graduates (as service providers), Government organized surveys with the help of ICAR, NCAP and NAARM in 2000 and the outcome received support of all the members of the Consultative Committee. At the backdrop of an extension gap and availability of a vast reservoir of untapped resource of unemployed agriculture graduates, a need was felt by the Government of India to design a programme which can take care of both, gave birth to the centrally sponsored scheme of “Agri-clinics and agribusiness centers”,

- The committee, under chairmanship of Prof. M.S. Swaminathan suggested creation of agriclinics and agribusiness centers managed by agri-graduates.
- During February 2001 NABARD has formulated a model scheme in consultation with MOA and selected banks for financing agriclinics and agribusiness centres and being implemented with the help of SFAC
- While MANAGE identified training institutes throughout the country for imparting training to agri-graduates.
- The Parliamentary consultative committee of Ministry of Agriculture approved this scheme on August 22, 2001.
- NABARD in consultation with the Ministry of Agriculture, and selected bank formulated a scheme for financing agriculture graduates under this scheme and announced the same on 23 July 2001.
- Government of India made a provision of Rs. 10.50 crores
- In this regard MANAGE identified 67 training institutes all over India for imparting training.
- With all expectation launched the ambitious “Agriclinic and Agribusiness centers scheme (AC & ABCs) on 9th April, 2002 at Jaipur.

Agri-clinic and agribusiness centers evolved with a view

- To gainfully utilize services and skills of agricultural graduates for supporting agriculture and allied activities,
- To complement government efforts, and
- To bring up SPS standards of Indian agriculture
- To create gainful employment for unemployed Agrigraduates

The scheme has the following objectives.

1. To supplement the efforts of government extension system.
2. To make available supplementary sources of input supply and services to needy farmers.
3. To provide gainful employment to agricultural graduates in new emerging area of agricultural sectors.

Agri-Clinic (AC)

- It is envisaged to provide expert services and advice to farmers on cropping practices

- Technology dissemination, crop protection from pest and diseases, market trends and prices of various crops in the markets and also clinical services for animal health etc., which would enhance productivity of crops and animals.

Agribusiness centers

- Envisaged to provide input supply farm equipments on hire and other services.
- In order to enhance viability of ventures, agricultural graduates may also take up activities in agriculture and allied areas along with agriclincs and agribusiness centers.

Some of the examples of successful Agri clinics:

1. Small Farmers Agri -business Consortium(SFAC)

The Kerala chapter of SFAC, venturing into the following agri enterprises.

- Organic farming
- Hydroponics
- Herbal products
- Food & beverage
- Agri shade nets

2. Farmers Market

The Novel initiatives from some of the State Govt, Popularly known by Uzhavar santhai (Tamil nadu), Rythu Bazaars(Andhra Pradesh), Apna mandi (Punjab) This kind of organization explores immense scope for agribusiness entrepreneurship training especially to inculcate Business skills. It could be imparted through KVK. The knowledge on value addition (Small Packet of fresh vegetables, “Daily a green “concepts, ready to cook foods, ready to eat foods ,door delivery to apartments) sand witched with business leadership concept could be an added feature to attract youth towards agribusiness.

III. Key issues in Agri. business development.

1. Lack of skilled and managerial manpower
2. Lack of infrastructural facilities
3. Problem of marketing
4. Lack of awareness about career in agri- preneurship
5. Inefficient and lack of equipments and technologies
6. High infrastructural and distribution costs
7. Unresponsive government policies

Suggestions to develop the Agri-Preneurship

The following suggestions may help develop entrepreneurship in agri-business in more effective manner.

1. Create awareness about agri-preneurship
2. Development of required skilled manpower
3. Development of infrastructure facilities
4. Promotion and protection by the government
5. Announcement of suppurate industrial policies
6. Development of agri-business special export zones.
7. Preparation of agri-business potential reports for regions across the country.

LECTURE-07

Business Leadership Skills

Leadership: A simple definition of leadership is that leadership is the art of motivating a group of people to act towards achieving a common goal

Entrepreneur Leadership: Rarely can entrepreneurs make a company succeed by themselves. This is much like the fact that the greatest athlete doesn't ensure that their team will win if the other players cannot perform. As such, entrepreneurs need to be able to identify staffing needs, expertly fill them, and lead the team to success.

Many people quickly assume that being a good leader means you're a good manager and vice versa. The two concepts are actually quite distinct and understanding that distinction can help you understand what it means to be good at either or good at both.

What are the Key Characteristics of Management?

From a broad perspective, management is smaller scale and more focused on details than leadership. The leader sets the vision and the broad plan; the manager executes it and does what is needed to achieve that plan. Key characteristics of management are as followings:

- A tactical focus on aspects of the organization's strategy
- Executing on specific areas within their responsibilities
- Formulating and enforcing the policies of a business to achieve its goals
- Directing and monitoring their team to achieve their specific goals
- Management and containment of risks in an organization
- Short term focus with attention to the details

What are the Key Characteristics of Leadership?

- Strategic focus on the organization's needs
- Establishing goals and the strategic direction
- Establishing principles
- Empowering and mentoring the team to lead them to their goals
- Risk engagement and overall identification
- Long term, high level focus

Difference between leadership and management

Leadership	Management
The leader sets the vision and the broad plan	Manager executes to achieve that set plan of leader
A tactical focus on aspects of the organization's strategy	Strategic focus on the organization's needs
Executing on specific areas within their responsibilities	Establishing goals, principles and the strategic directions
Formulating and enforcing the policies of a business to achieve its goals	Empowering and mentoring the team to lead them to their goals

Entrepreneur Leadership Qualities

- Seeking self-improvement
- Possessing technical skills
- Accepting responsibility for actions
- Making decisions
- Being a role model

Features of Good Entrepreneur

- Brain – to plan
- Hands – to do the plan
- Mouth – to communicate and convince
- Eyes – to see to it
- Ears – to spy
- Nose – to smell danger
- Skin – to protect
- Heart – to love and create good relationship
- Feet – to stand
- Spirit – to live

Principles of Entrepreneurial Leadership

- Never blame
- Don't create adversarial situations
- Understand the work. Be a constant learner
- Don't put square pegs in round holes
- Lead by example
- Brainstorm
- Record all ideas
- Ask, don't tell
- Be decisive
- Consider profit-sharing
- Be sympathetic
- Be firm

Entrepreneur Leadership skills

- Muster a committed team
- Communicate without limits
- Make company's mission statement clear
- Unearth true, genuine leadership
- Identify your hindrances
- Build a flexible team and give them proper direction
- Trust in your team
- Acknowledge people's talent and give proper credit
- Motivate your employees
- Be prepared for the unexpected

Examples of Indian Entrepreneur

- Brijmohan Lall Munjal (1923-), founder of The Hero Group, which owns Hero Motors
- Dhirubhai Ambani (1933–2002), founder of Reliance Industries
- Ghanshyam Das Birla (1894–1983), prominent member of the Birla family
- J. C. Mahindra, co-founder of the Mahindra Group
- J.R.D. Tata, founder of Air India and Chairman of the Tata Group for 52 years.
- K. C. Mahindra, co-founder of the Mahindra Group
- Karsanbhai Patel (1945-), founder of the Nirma Group

- Kasturbhai Lalbhai (1894–1980), textile baron, founder of Arvind Mills
- Sabeer Bhatia (1968-), co-founder of Hotmail
- T. V. Sundaram Iyengar (1877–1955), founder of the TVS Group

LECTURE-08

Developing managerial and organizational skill

Management if originated from FRENCH, word 'menage' means housekeeping. Management is an art of getting things done through others by directing their efforts towards achievement of pre-determined goals.

- Management is an executing function.
- Management decides who should & how should he do it.
- Management is a doing function because managers get work done under their supervision. Skills required are Technical and Human skills.
- Management is more of middle & lower level function.

Management can be defined as:

- Management as a Process
- Management as an Activity
- Management as a Discipline
- Management as a Group
- Management as a Science
- Management as an Art
- Management as a Profession

Importance of Management

1. **It helps in Achieving Group Goals** - It arranges the factors of production, assembles and organizes the resources, integrates the resources in effective manner to achieve goals. It directs group efforts towards achievement of pre-determined goals. By defining objective of organization clearly there would be no wastage of time, money and effort. Management converts disorganized resources of men, machines, money etc. into useful enterprise. These resources are coordinated, directed and controlled in such a manner that enterprise work towards attainment of goals.

2. **Optimum Utilization of Resources** -Management utilizes all the physical & human resources productively. This leads to efficacy in management. Management provides maximum utilization of scarce resources by selecting its best possible alternate use in industry from out of various uses. It makes use of experts, professional and these services leads to use of their skills, knowledge, and proper utilization and avoids wastage. If employees and machines are producing its maximum there is no under employment of any resources.

3. **Reduces Costs** - It gets maximum results through minimum input by proper planning and by using minimum input & getting maximum output. Management uses physical, human and financial resources in such a manner which results in best combination. This helps in cost reduction.

4. **Establishes Sound Organization** - No overlapping of efforts (smooth and coordinated functions). To establish sound organizational structure is one of the objective of management which is in tune with objective of organization and for fulfilment of this, it establishes effective authority & responsibility relationship i.e. who is accountable to whom, who can give instructions to whom, who are superiors & who are subordinates. Management fills up various positions with right persons, having right skills, training and qualification. All jobs should be cleared to everyone.

5. **Establishes Equilibrium** - It enables the organization to survive in changing environment. It keeps in touch with the changing environment. With the change is external environment, the initial co-ordination of organization must be changed. So it adapts

organization to changing demand of market / changing needs of societies. It is responsible for growth and survival of organization.

6. Essentials for Prosperity of Society - Efficient management leads to better economical production which helps in turn to increase the welfare of people. Good management makes a difficult task easier by avoiding wastage of scarce resource. It improves standard of living. It increases the profit which is beneficial to business and society will get maximum output at minimum cost by creating employment opportunities which generate income in hands. Organization comes with new products and researches beneficial for society.

Managerial Skills: A manager's job is complex and multidimensional. It requires a range of skill to perform the duties and activities associated with it. Regardless of the level of management, managers must possess and seek to further develop many critical skills. A skill is an ability or proficiency in performing a particular task. Management skills are learned and developed. An effective manager must possess the following skills to perform his job well:

1. Technical Skill: Technical skill is the ability to use the procedures, techniques, and knowledge of a specialized field. Engineers, accountants, doctors, and musicians all have technical skills in their respective fields. Technical skill also includes analytical ability and the competent use of tools and work equipments to solve problems in that specific discipline. Technical skills are especially important for first-line managers. These skills become less important than human and conceptual skills as managers move up the hierarchy.

2. Human or Psychological Skill: Human skill is the ability to work with people by getting along with them. It is the ability to motivate, lead and to communicate effectively with others. It is also known as 'people', 'interpersonal' or 'behavioural' skill. This skill is important as the managers spend considerable time interacting with people both inside and outside the firm. Managers require such skill for the following specific reasons:

- To get the best out of their people.
- To communicate, motivate, lead and inspire enthusiasm and trust.
- To get the job done.
- To coordinate and resolve conflicts.
- To allow subordinates to express themselves.
- To take care of the human side of the organization.
- To face the challenges of globalization, workforce diversity and competition.
- To keep people busy.
- To retain good workers in the firm.
- To improve overall organizational performance.

Human skills are equally important at all levels of management. A related aspect of human skill is political skill which is a distinct type of social skill that is important for managerial success.

3. Conceptual Skill: Conceptual skills are most important at the top management levels. More specifically, conceptual skills refer to the ability:

- To organize information and to judge relationships within a complex whole.
- To think and to conceptualize about complex situations.
- To see organization as a whole.

- To understand the relationships among various sub-units.
- To visualize how organization fits into its broader environment.
- To recognize significant elements in a situation and to understand the relationships among the elements.
- To understand how a change in one unit will impact the other units.
- To coordinate and integrated the entire organization's interests and activities.
- To think in the abstract.

Conceptual skill is often called the ability to see the 'big picture'. It means the ability to 'think strategically'- to take the broad, long-term view. The importance of conceptual skills increases as the manager is promoted higher in the organization.

4. Diagnostic Skill: This is the skill that enables a manager to visualize the most appropriate response to a situation. A manager can diagnose and analyze a problem in the organization by studying its symptoms and then developing a solution. It is the ability to define the problem, recognize its possible causes, focus on the most direct problem, and then solve it.

It is the ability to determine, by analysis and examination, the nature and circumstances of a particular condition. It is not only ability to specify why something occurred, but also the ability to develop certain speculations in 'what if' situation. It can be noted that managers generally use different combinations of skills at different levels of an organization. For example, top managers rely heavily on conceptual and diagnostic skills and first-line managers put more emphasis on technical and interpersonal skills. Many experts have suggested few more additional skills for managers to perform their roles successfully. They are as follows:

5. Design Skill: According to Koontz and Weihrich, managers at upper organizational levels must have the skill of a good design engineer in working out a practical solution to problems. Design skill is the ability to solve problems in ways that benefit the enterprise. Managers must be able to do more than see a problem. If they become 'problem watchers', they will fail. They must be able to design a 'workable solution; to the problem in the light of the realities they face.

6. Analytical Skill: These skills involve using scientific approaches or techniques to solve management problems. In essence, analytical skills are the abilities to identify key factors and understand how they interrelate. These skills include the ability to diagnose and evaluate. These are needed to understand problems and to develop plans of action for their solution. It is ability to think about how multiple complex variables interact.

7. Decision Making Skill: All managers must make decisions, and the quality of these decisions determines their degree of effectiveness. Duening and Ivancevich state that a manager's decisions making skill in selecting a course of action is greatly influenced by his analytical skill. All managers must have decision making skills. Research indicates that half of managers' decisions fail because managers employ 'failure-prone tactics'.

8. Digital Skill: Managers must know how to use digital technology to perform many aspects of their jobs. This skill increases a manager's productivity. This skill involves a conceptual understanding of computers and telecommunications. Through computers, managers can perform in minutes tasks in financial analysis, human resources planning and other areas that otherwise take hours to complete.

9. Interpersonal Skill: Effective communication is vital for effective managerial performance. This skill is crucial to managers who must achieve results through the efforts of others. It is the ability to exchange ideas and information in ways that other people understand the message. It also involves feedback from employees to ensure that one is understood. If managers are to succeed in the workplace, they must strengthen their communication skills.

10. Planning and Administration Skill: This skill involves deciding what tasks need to be done, determining how they can be done. Allocating resources to enable them to be done, and then monitoring the process to ensure that they are done. Included in this competency are:

- a. Information gathering, analysis, and problem solving;
- b. Planning and organizing projects;
- c. Time management; and
- d. Budgeting and financial management

11. Teamwork Skill: It is the skill to: (i) design teams properly, (ii) create a supportive team environment; and (iii) manage team dynamics appropriately. Because more and more organizations are relying on teams to improve quality and productivity, it becomes important for managers to develop their teamwork skill.

12. Strategic Action Skill: Strategic action skill involves understanding the overall mission and values of the organization and taking strategic actions. Today, managers at all levels and in all functional areas are being challenged to think strategically in order to perform their jobs better;

13. Global Awareness Skill: Today, most of the companies are serving global markets. Many organizations need to set up operations in other countries. Hence, it has become necessary for managers to develop global awareness competency. This skill is reflected in (i) cultural knowledge and understanding, and (ii) cultural openness and sensitivity.

14. Self-Management Skill: The dynamic work environment calls for self-awareness and development. Effective managers have to develop self-employment skill which includes:

- ✓ Integrity and ethical conduct,
- ✓ Personal drive and resilience,
- ✓ Balancing work and life demands,
- ✓ Self-awareness and development, and
- ✓ Learning about self.

What are the general management skills?

1. **Management skills**— planning, organizing, supervising, directing, networking
2. **Marketing/Sales skills**— identifying customers, distribution channels, supply chain
3. **Financial skills**— managing financial resources, accounting, budgeting

4. **Legal skills**– organization form, risk management, privacy and security
5. **Administrative skills** – people relations, advisory board relations
6. **Higher-order skills** -learning, problem-solving

The difference between Management and Administration

Basis	Management	Administration
Meaning	Management is an art of getting things done through others by directing their efforts towards achievement of pre-determined goals.	It is concerned with formulation of broad objectives, plans & policies.
Nature	Management is an executing function.	Administration is a decision-making function.
Process	Management decides who should do it & how should he do it.	Administration decides what is to be done & when it is to be done.
Function	Management is a doing function because managers get work done under their supervision.	Administration is a thinking function because plans & policies are determined under it.
Skills	Technical and Human skills	Conceptual and Human skills
Level	Middle & lower level function	Top level function

LECTURE-09

SUPPLY CHAIN MANAGEMENT

SUPPLY CHAIN MANAGEMENT: Supply chain management (SCM) represents the management of the entire set of production, manufacturing/transformations, distribution and marketing activities by which a consumer is supplied with a desired product. The practice of SCM encompasses the disciplines of economics; marketing, logistics and organizational behaviour to study how supply chains are organized and how institutional arrangements influence industry efficiency, competitions and profitability.

SCM provides a means to conceptualize management of the changes required in the system to efficiently respond to consumer needs, based on integration and coordination of the efforts of all the business units involved in the production and delivery processes.

INPUT INDUSTRY--->FARMER-->TRADE-->DISTRIBUTION CENTER-->RETAILING

Managing supply chains requires an integral approach in which chain partners jointly plan and control the flow of goods, information, technology and capital from ‘farm to fork’, meaning from the suppliers of raw materials to the final consumers and vice versa. Supply chain management results in lower transaction costs and increased margins. Because of the many activities and aspects involved it demands a multidisciplinary approach and sustainable trade relations.

Advantages of supply chain management

1. Reduction of product losses in transportation and storage.
2. Dissemination of technology, advanced techniques,
3. Capital and knowledge among the chain partners.
4. Better information about the flow of products, markets and technologies.
5. Transparency, Tracking & tracing to the source.
6. Better control of product safety and quality.
7. Large investments and risks are shared among partners in the chain.

Stages of Supply chain

In general, supply chain may involve a variety of stages. The supply chain stages include;

- Customers
- Retailers
- Wholesalers/Distributors
- Manufacturers
- Component / Raw material suppliers

Process of a supply chain

A supply chain is a sequence of processes and flows that take place within and between different stages and combine to fill a customer need for a product. There are two different ways to view the processes performed in a supply chain.

1. Cycle view: The processes in a supply chain are divided into a series of cycles, each performed at the interface between two successive stages of a supply chain.

2. Push/pull view: The processes in a supply chain are divided into two categories depending on whether they are executed in response to a customer order or in anticipation of customer

orders. Pull processes are initiated by a customer order whereas push processes are initiated and performed in anticipation of customer orders.

Cycle view of supply chain processes

All supply chain processes can be broken down into the following four process cycles.

1. **Customer order cycle:** The customer order cycle occurs at the customer / retailer interface and includes all processes directly involved in receiving and filling the customer's order. Typically, the customer initiates this cycle at a retailer site and the cycle primarily involves filling customer demand.
2. **Replenishment cycle:** The Replenishment cycle occurs at the retailer/distributor interface and includes all processes involved in replenishing retailer inventory. It is initiated when a retailer places an order to replenish inventories to meet future demand.
3. **Manufacturing cycle:** The manufacturing cycle typically occurs at the distributor/manufacturer (or retailer/manufacturer) interface and includes all processes involved in replenishing distributor (or retailer) inventory.
4. **Procurement cycle:** The procurement cycle occurs at the manufacturer/supplier interface and includes all processes necessary to ensure that materials are available for manufacturing to occur according to schedule. During the procurement cycle, the manufacturer order components from suppliers that replenish the component inventories.

Push / Pull View of Supply Chain Processes

Pull processes, execution is initiated in response to a customer order. With push processes, execution is initiated in anticipation of customer orders. Therefore, at the time of execution of a pull process, customer demand is known with certainty whereas at the time of execution of a push process, demand is not known and must be forecast. Pull processes may also be referred to as reactive processes because they react to customer demand. Push processes may also be referred to as speculative processes because they respond to speculated (or forecasted) rather than actual demand.

Drivers of Supply Chain Performance

Four key drivers of supply chain performance are facilities, inventory, transportation and information. These drivers not only determine the supply chain's performance in terms of responsiveness and efficiency, but also determine whether strategic fit is achieved across the supply chain.

1. **Inventory:** Inventory is nothing but raw materials, work in process and finished goods within a supply chain. Inventory is an important supply chain driver and it is one of the factors that decide the supply chain's efficiency and responsiveness.
2. **Transportation:** Transportation entails moving inventory from one point to another point in the supply chain. Transportation choices have a large impact on supply chain responsiveness and efficiency.
3. **Facility:** These are locations where raw materials, finished goods are stored or fabricated and distributed. The two major types of facilities are production sites and storage sites. Whatever the function of the facility, decisions regarding location, capacity and flexibility of facilities have a significant impact on the supply chain's performance.
4. **Information:** Information consists of data and analysis concerning facilities, inventory, transportation, and customers throughout the supply chain. Information is potentially the biggest driver of performance in the supply chain as it directly affects each of the other drivers.

Scope of Agri-Supply Chain Management

At the farmer level a key preliminary step is often the development of relationships between individual farmers to create a trading entity with capacity to supply sufficient quantity and continuity to be a credible supply chain member. This may be championed by a farmer, by another member of the chain, or by an external facilitator or manager.

Hence the technical and professional issues in supporting the operation of supply chains may include facilitating:

1. The development of relationships between farmers to allow their participation
2. The development of relationships between members of the supply chain
3. Information flows between members of the supply chain
4. Establishing common standards between members of the supply chain
5. Optimizing performance within each level of the supply chain and in the linkage processes.

Promotion activities needed in Agri-Chain Development

1. Public private partnership in needed.
2. Investing in transportation, communication and electricity.
3. Subsidies or co-financing supply for high -risk investments.
4. Ensure the availability of (production, price, industry) information and statistics to facilitate market activity and to monitor market progress.

Chapter -10

MARKET CHANNELS

Production is for consumption. Having produced the products, these need to be made available to the final users of the product, i.e., the consumers scattered in large geographical areas. Since, many a times it becomes extremely difficult, if not impossible, to reach the customers on its own, the firm needs the help of marketing intermediaries, like wholesalers and retailers, to reach their products to the ultimate/final consumers. These intermediaries serve as channels to reach the product to the consumers. Let us consider a few definitions on distribution channels.

According to the *Committee on Definitions of the American Marketing Association (1960)*:

"A channel of distribution or marketing channel is the structure of intra-company organization units and extra-company agents and dealers, wholesale and retail, through which a commodity, product or service is marketed."

R.S. Devar observes, "Distribution as an operation, or a series of operations which physically bring goods manufactured or produced by particular manufacturer into the hands of the final consumer of user".

In fact, channels of distribution are like *pipelines* which take the right quantities of the right product to the right location where the target consumers want them at the right time. This section, therefore, deals with the process how products go through this channel from the producer to the final user. These distribution channels, in a way, refer to the *methods of marketing* also.

In view of the number of intermediates, distribution channels can be classified into three categories. These are:

1. *Zero-Level Channel*: When the distribution of the product is direct from the producer to the consumer or user. This is also called *direct selling*.
2. *One-Level Channel*: When the product is not sent direct from the producer to the consumer but the producer sells the product to the retailer who, in turn, sells to the consumer. This channel is also known as *distribution through retailers*.
3. *Two-Level Channel*: When there are two levels of different kinds of intermediaries between the producer and the consumer. In other words, under his channel, the manufacturer sells the product to the wholesaler who sells to the retailer and who finally sells to the consumer. This is called as *distribution through wholesalers and retailers*.

All these three channels can better be understood with the following Figure also.

Let us discuss these in some more details.

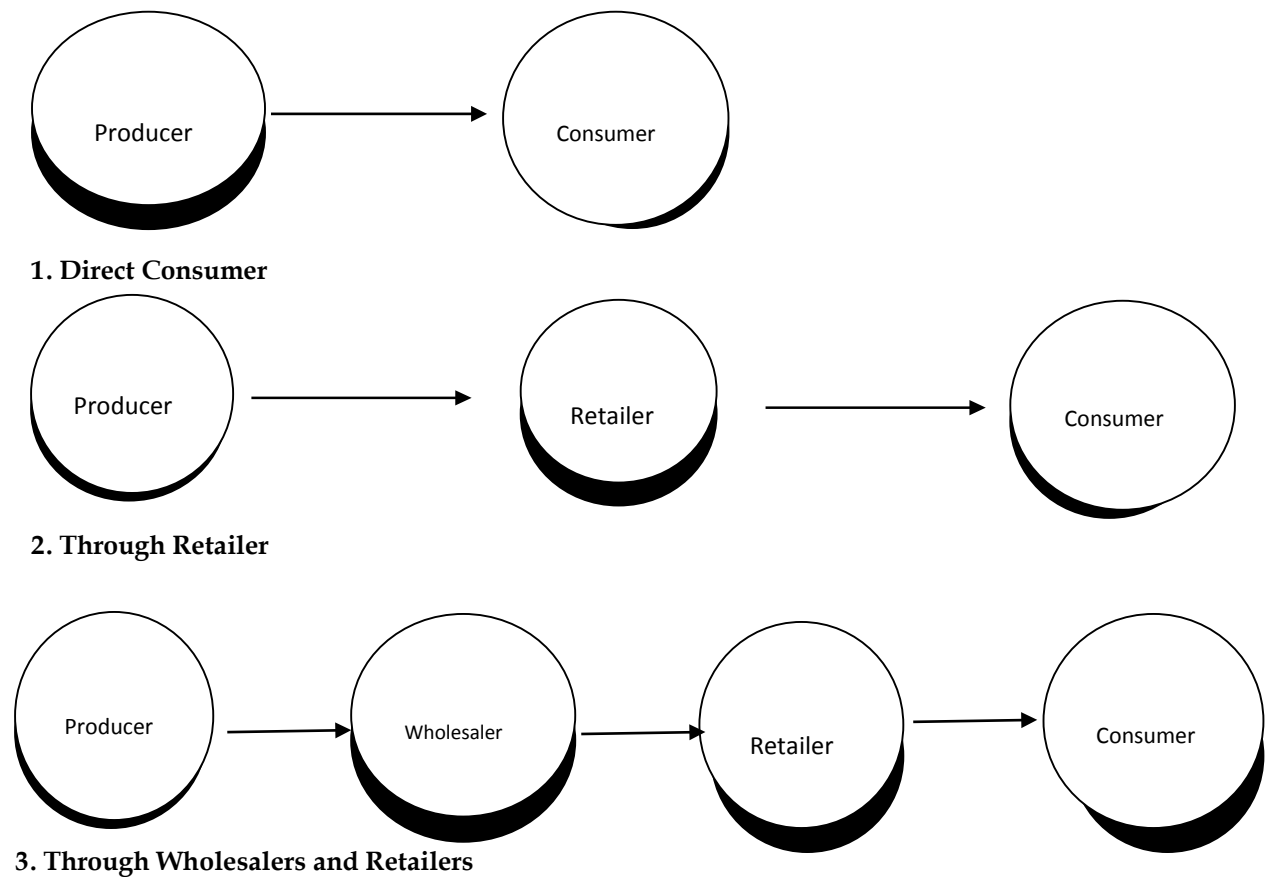


Fig.3: Market Distribution Channels

1. **Direct Selling:** This method is also referred to as producer to consumer channel. Under this channel, the producer of goods attempts to make a direct contact with the ultimate user of goods by several methods of selling including door-to-door sales-persons. This method is most common in industrial marketing particularly in respect of capital goods like industrial chemicals, heavy equipment's, etc.

Direct selling to the consumer has the following *advantages* to the producers:

1. Close relationship to the consumers makes the producer constantly aware of changes and other consumer needs.
2. Profit do not go to the middle-man.
3. Goods get to the consumer more quickly because they do not have to travel through intermediates or middlemen.

Despite these apparent advantages, direct selling has not become a powerful channel. According to an estimate, even less than 3 per cent of total consumer sales are made in this channel. This is due to, the producer has to spend a handsome amount in the training, maintaining and supervising a large number of sales staff. ii. It involves cumbersome

difficulties in providing and maintaining inventories of goods at many locations to assure prompt delivery to the customers.

2. Producer to Retailer to Consumer Channel: This is a kind of indirect selling. This channel avoids wholesalers. It is suitable when products are perishable and speed in distribution is extremely essential. The goods that are frequently sold in this channel are fashion merchandise, products requiring installations, high value goods, etc.

3. Producer to Wholesaler to Retailer to Consumer Channel: This channel is also known as the traditional channel. This is also the most common method of distribution under which the producer sells to the wholesaler, who, in turn, sells to the retailer, who finally sells to the consumer. In this system, the wholesaler is granted a certain portion of the total profit, in return for which he or she buys stores, sells, delivers and extends credits. This channel is invariably used in respect of groceries, drugs, drug goods, etc.

This channel option is particularly suitable to the following producers:

1. Who lack in financial resources;
2. Whose product line is narrow; and
3. Whose products are not subject to fashion changes and physical deterioration but are durable.

Despite these features, this channel suffers from certain limitations also. To mention: (i) An over-dependence on wholesalers causes him/her i.e., the producer to lose contact with the dealers; (ii) The wholesaler may have different products of different producers to sell. In such case, the wholesaler might be quite unable to push up the sales of one specific product produced by a producer.

Despite the various merits and demerits of all the three above mentioned channels, the *producer to wholesaler to retailer to consumer* channel has been commonly used by most of the producers to distribute their products to the ultimate consumers.

After going through the above description, an inevitable question arises in the mind which one is the best suitable channel for distributing the products of a small enterprise. Therefore, one last word on channel choice before we close this section.

How to Select a Suitable Channel? : The success or failure of an enterprise *inter alia* depends upon, to a great extent, the selection of a suitable channel of distribution. There are a number of factors that must be considered when a channel of distribution is to be selected. In practice, many choices are available, so a careful study is required before a decision could be reached that will fit to the specific conditions of the enterprise to be the best channel of distribution. Some of the important factors to be kept in mind while selecting a distribution channel are:

1. Study the channels that are available, more especially those used by the competition.
2. Determine the channel that will best match the salient characteristics of the product to be marketed.
3. Estimate the probable demand for the product.
4. Consider the available financial resources.
5. Approximate the costs, sales and profits for each available channel.

6. Determine the size of the product line and amount of a typical order.

How much crucial the selection of a suitable channel of distribution is for new product of a small enterprise is well testified by a grape juice enterprise. The juice was originally sold through food brokers who delivered exclusively to warehouses and only replenished retailers' shelves once a month. This led to poor display and frequent out-of-stock situations. By replacing food brokers with distributors who delivered the beverage to stores several times a week. Thus, grape juice producer transformed his marginal product into a highly successful one by selecting the most suitable channel of distribution for his (juice) product.

TOTAL QUALITY MANAGEMENT

Total quality management (TQM) has been defined as an integrated organizational effort designed to improve quality at every level.

According to international organization for standards defined TQM as, "TQM is a management approach for an organization, centred on quality, based on the participation of all its members and aiming at long-term success through customer satisfaction and benefits to all members of the organization and to the society.

Characteristics of TQM

1. Committed management.
2. Adopting and communicating about total quality management.
3. Closer customer relations.
4. Closer provider relations.
5. Benchmarking.
6. Increased training.
7. Open organization
8. Employee empowerment.
9. Flexible production.
10. Process improvements.
11. Process measuring.

Principles of TQM

1. Produce quality work the first time and every time.
2. Focus on the customer.
3. Have a strategic approach to improvement.
4. Improve continuously.
5. Encourage mutual respect and teamwork

The key elements of the TQM

1. **Focus on the customer:** It is important to identify the organization's customers. External customers consume the organization's product or service. Internal customers are employees who receive the output of other employees.
2. **Employee involvement:** Since the quality is considered the job of all employees, employees should be involved in quality initiatives. Front line employees are likely to have the closest contact with external customers and thus can make the most valuable contribution to quality. Therefore, employees must have the authority to innovate and improve quality.
3. **Continuous improvement:** The quest for quality is a never-ending process in which people are continuously working to improve the performance, speed and number of

features of the product or service. Continuous improvement means that small, incremental improvement that occurs on a regular basis will eventually add up to vast improvement in quality. TQM is the management process used to make continuous improvements to all functions. TQM represents an ongoing, continuous commitment to improvement. The foundation of total quality is a management philosophy that supports meeting customer requirements through continuous improvement.

Benefits of TQM:

1. Improved quality.
2. Employee participation.
3. Team work.
4. Working relationships.
5. Customer satisfaction.
6. Employee satisfaction.
7. Productivity.
8. Communication.
9. Profitability.
10. Market share

Chapter 11

Extension Administration

Administration is the guidance, leadership and control of the efforts of a group of persons towards some common goals. Administration implies conscientious efforts directed towards organizing and controlling human activities in order to achieve agreed or desired goals. It involves, therefore, the organization, direction and control of persons and facilities in order to accomplish specified ends.

Administration involves essential activities of the people charged with ordering, forwarding and facilitating the efforts of individuals or groups brought together for desirable purposes. It involves efforts such as decision-making, programming, communicating relevant information, controlling and evaluating various actions.

Administration is used during policy formulation for developing staff, understanding the planning process, job description, training and evaluation processes.

The Concept of Extension Administration

Agricultural extension involves various activities directed to improve food production and living standards of the people. Extension, therefore, requires direction and control of these activities in order to achieve the desired goals. Extension administration depicts the effort of the administrator to direct, guide and integrates the activities of members of his staff in order to attain the goal of the extension service and help farmers realize their objectives. Thus, extension administration refers to the art of directing, guiding and controlling human and material resources in an extension system. It involves articulate joining of all aspects of agriculture such as animal and crops husbandry, soil management, technology design and supply services in order to increase food production and income levels of farmers.

Administration in extension is concerned mainly with bringing human beings together for the purpose of executing extension functions.

The administrator at the upper hierarchy should permit all members of the extension agency to participate in the efficient utilization of the available resources in order to achieve set goals. Members of an extension service are categorized into directive or executive cadre. Any staff in the directive cadre assumes responsibility for directing which indicates that there are people to direct. Similarly, the executive staff (also known as organizing staff) has the responsibility for organizing and executing issues, which indicates that there are people to organize. For a meaningful extension administration, mutual co-existence among members of an extension system is necessary.

Extension administration recognizes the existence of people with diverse interests, aptitudes, attitudes and social background. Therefore, extension is designed to serve farmers with differences in orientation. Extension has the task of limiting various interests and discouraging the uninteresting nature of farmers in order to salvage the whole agricultural system and achieve overall improvement in national economy. Extension administrators should focus efforts towards desired change. Change can be achieved through meaningful inter and intra-organizational relationships among extension workers and other development agencies.

Difference between Management and Administration

Management is a part of Administration. Management is an administrative technique in the conduct of public affairs. The traditional framework within which a civil service exercises its responsibilities is described as an administration.

Administration lays emphasis on proper procedure, regulation and control. It employs ease of communication to achieve an unambiguity – interpreting words and issues to ease the operation of a system.

Administration takes place in the health sector, universities, army, church, agriculture, industries, business and social organizations such as the Agricultural Extension Service.

Basis For Comparison	Management	Administration
Meaning	An organized way of managing people and things of a business organization is called the Management.	The process of administering an organization by a group of people is known as the Administration.
Authority	Middle and Lower Level	Top level
Role	Executive	Decisive
Concerned with	Policy Implementation	Policy Formulation
Area of operation	It works under administration.	It has full control over the activities of the organization.
Applicable to	Profit making organizations, i.e. business organizations.	Government offices, military, clubs, business enterprises, hospitals, religious and educational organizations.
Decides	Who will do the work? And How will it be done?	What should be done? And When is should be done?
Work	Putting plans and policies into actions.	Formulation of plans, framing policies and setting objectives
Focus on	Managing work	Making best possible allocation of limited resources.
Key person	Manager	Administrator
Represents	Employees, who work for remuneration	Owners, who get a return on the capital invested by them.
Function	Executive and Governing	Legislative and Determinative

Principles of Good administration

1. Definite and clear cut responsibilities should be assigned to each executive (functional assignment of duties), to facilitate attainment of organizational objectives which should have already been well defined.
2. Responsibility should always be coupled with corresponding authority (proper delegation of authority). This encourages initiative.
3. Each administrative unit (whether it is the organization as a whole , a division, a section and sub section) should have a single responsible head(centralized executive responsibility)
4. No executive or employee, occupying a single position in organization, should be subject to definite orders from more than one source
5. No order should be given direct to subordinate by passing their immediate superior.
6. For efficiency in co-ordination, activities closely related to each other should be grouped together under common direction. Also provision should be made to avoid friction and to

- ensure the cooperation action of all interested parties and the proper co-ordination of related activities aimed at attainment of a organization objectives.
7. The people under a supervisor should be limited to a number he can effectively-supervise.(optimum span of control)
 8. All administrators should understand and follow the art and science of human relations in the management of people.
 9. Besides clearly defining the duties of those in key positions and delegating necessary authority, it should be ensured that the several employs act in accordance with the plan of organization. Facilities should be given for self-evolution as well as inspection and evolution by superiors.
 10. Criticism of sub-ordinates should, whenever possible, be made privately, and in no case should be sub-ordinate be criticized in presence of employees of equal or lower rank. Rewards must base on objective assessment.
 11. No executive or employee should be required or expected to be an assistant to, or a critic or, another of equal or higher rank
 12. No dispute or difference between executives or employees as to authority or responsibility should be considered too trivial for prompt and careful adjudication.

Functions of administration

The functions of an administrator in the administrative process are:

- a) Planning
- b) Organizing
- c) Staffing
- d) Directing
- e) Coordinating
- f) Reporting
- g) Budgeting

These are represented by the acronym POSDCoRB

A. **Planning** - Effective extension work results from planning. Any administrator that does not plan ahead, with specific aims and objectives to be realized within a specific time, is bound to inhibit performance. It is the function of the administrator to plan the programme of extension and such a programme will include:

- The description of situation
- Problems or actions that need to be given attention
- Aims and objectives to be achieved
- Responsibilities of various officers, and
- Possible courses of action to achieve the stated objectives

Planning helps to

- Avoid waste of resources,
- Facilitate proper allocation and distribution of available resources, and
- Provide a guide to constructive action in the field.

B. **Organizing:** Organizing refers to the arrangement of persons, ideas, materials and other facilities necessary for the performance of functions. Work is assigned to individuals, groups or departments.

C. Staffing: This involves the recruitment, selection, development, utilization and accommodation of human resources in the organization.

D. Directing (Supervision): This involves direct face-to-face oversight of tasks assigned to individuals or small groups in order to ensure correct and adequate performance. It is the process of ensuring that policies, administrative procedures and programmes are carried out properly. The supervisor is a person who is responsible for overseeing the work of a given number of field officers in a given area. The function of a supervisor is that of translating extension policies into action. Optimum performance is obtained under a supervised condition.

E. Coordination: The organization's activities must be coordinated and correlated. Coordination is an essential element in administration and it involves adjustment of the parts to each other. The administrator should coordinate the human efforts and group staff activities in order to obtain the best results.

F. Reporting (Evaluation): This function involves appraisal of activities or performance. From time to time, administrators must evaluate themselves, their staff and the system. Evaluation offers the opportunity to determine how well the goals of the extension service are being achieved and the overall performance of the organization. Information and data are gathered from the various units, departments and even individuals in the form of a report. Based on the report, adjustments could be made.

G. Budgeting: Budgeting is a process of optimal allocation of available resources to competing needs, so as to achieve set objectives. Some of the objectives are to:

- Plan the policy of an organization
- Coordinate the activities of an organization so that each is part of the integral whole
- Control each function so that the best possible result may be obtained, and
- Evaluate the activities of an organization.

The budgeting process creates a formal planning framework and gets people involved in deciding what is to be done in the future. It fosters coordination and communication, and promotes efficiency in operating an organization. Budgeting makes people aware of the cost of undertaking a specific activity or project. It aids in orienting organizational operation towards the goals of the organization. Limited resources can be allocated to provide the greatest degree of benefits.

