PRACTICAL MANUAL

Course Title : **Fundamentals of Agricultural Extension Education**

Course No. : **EXTN – 122**

Credits : **3 (2+1)**

Course : **B.Sc. (Hons.) Agriculture**

Semester : **II Semester (New)**

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Department of Extension Education,

VNMKV, Parbhani : 431 402

(2018)

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Exercise No. 1

Study of University Extension System

Agricultural extension is a branch of agriculture which assists the farmers to bring about continuous improvement in their physical, economic and social well being through individual and co-operative efforts. Agricultural research and education got major support in the first decade of the 20th century when Lord Curzon was the Viceroy of India. The most significant milestone was the establishment of the Imperial (now Indian) Agricultural Research Institute (IARI) at Pusa in Bihar in 1905. The 'Pusa' institute suffered from a devastating earthquake in 1934 and was therefore, shifted to New Delhi, a central place, in 1936.

Also in 1905, six agricultural colleges were established in important provinces at :

1) Pune (Maharashtra),
2) Kanpur (Uttar Pradesh),
3) Sabour (Bihar),
4) Nagpur (Maharashtra),
5) Faisalabad (now in Pakistan) and
6) Coimbatore (Tamil Nadu).

Another significant development was the establishment of the Imperial (now Indian) Council of Agricultural Research (ICAR) in 1929, an autonomous body, on the recommendation of the Royal Commission on Agriculture (1926).

Extension System of SAUs

For improving the standard and quality of agricultural education, research and field extension, agricultural universities were started in each state since 1960.

In the field of extension the roles of universities are;

1. Responsible for conducting training programmes and field trials on the farmers fields to test the research findings and their applicability at field level;
2. Extension agency is a feed-back of agricultural universities;
3. Acts as a primary source of agricultural information and also undertakes training of extension functionaries of the development departments and education training institutions.

Extension Role of Agricultural Universities

The University Education Commission (1949), headed by Dr. S. Radhakrishnan, recommended the establishment of 'Rural Universities' in India. The first agricultural university came into existence at Pantnagar, Uttaranchal State (erstwhile Uttar Pradesh), in 1960. The extension role of agricultural universities is presented followed the Report of the Review Committee of Agricultural Universities headed by Dr.M.S. Randhawa (1978).

The role of extension education set-up in the agricultural university should be broadly as follows.

1. Teaching in extension education: To train and produce professionals for teaching research and field extension work and provide dynamic leadership to extension programmes through a should systematic and integrated under-graduate and post-graduate teaching in extension education.

2. Research in extension education: To undertake research on various facets of extension with a view to enriching programme formulation and operation and to develop new methodology and approach for speedy transfer of new technology to farm and farm homes.

Extension of the Agricultural University has to be research oriented and shall perform mainly the following functions:

1. Conduct survey and pinpoint farmers' problems for research.
2. Conduct adaptive on-farm trial with advance research materials in farmers' fields.
3. Conduct frontline demonstrations in farmers' fields on the technologies recommended by research.
4. Provide advisory service to the farmers of the areas.
5. Conduct training programmes for farmers and extension agents.
6. Provide information communication support for extension work.
7. Evaluate the extent to which the project work has been successful and identify deficiencies and problem

Application of extension education :

1. The field extension work of the Agricultural Universities are designed to plan, organize and conduct production and problem oriented training of various types and durations for extension personnel.
2. To collect, to process and to disseminate latest research findings to extension personnel and extension clientele through appropriate methods and media.
3. Produce information materials and teaching aids for extension personnel, trainers and farmers.
4. Carry out limited frontline demonstration based on latest research findings and to identify field problems are feedback to research departments.
5. Provide effective farm advisory service to farmers, farm youth, extension personnel, bankers, input dealers and manufacturers, voluntary farm organization and other concerned with agricultural development for further research

Extension Education System of VNMKV, Parbhani

Directorate of Extension Education of VNMKV, Parbhani have the main responsibility of Extension Education in the Marathwada region. Extension Education in agriculture and allied fields is concerned with dissemination of agricultural technologies evolved by the University and ICAR Institutes to the door steps of the farmers' to increase crop production on one hand and to bring the feedbacks to research system on the other hand. It also aims to transfer of knowledge and skill about agriculture and allied fields and build competence among the farmers and other clientele groups through various extension programmes.

Objectives :

- To plan, implement, co-ordinate and monitor the agricultural extension activities in Marathwada region.
- To assist and compliments state department of agriculture, public sector and voluntary organizations in effective management of extension education systems.
- Organization of front line Extension Education Programmes.

Extension Education Council (EEC) :

It is a statuary body consisting of the Hon. Vice-Chancellor as its Chairman, Director of Extension, Director of Research, Director of Instructions and Dean, Faculty of Agriculture, Head, Dept. of Extension Education, Chief Extension Education Officer, Director of Agriculture (Extension and Training), as members and four officers and progressive farmers as co-oped members. The Council meets at least once in a year to review, discuss and plan the policies and issues on extension system.

Organization structure and different units of Directorate of Extension :

Directorate of Extension Education established in 1981-82 carries activities with the help of (i) Regional Agricultural Extension Education Centres (04), (ii) Extension Education Unit (01), (iii) Krishi Vigyan Kendras (03) and (iv) Agricultural Technology Information Centre (01).

(i) Regional Agricultural Extension Education Centres (RAEECs) :

Training and Visit Scheme of Agril. Extension was launched in the year 1981-82 and subsequently, the Directorate of Extension Education was established with one post of Director of Extension Education and four posts of Extension Agronomists. The mandate of T & V Scheme was to give technical support to the extension workers of the State Department of Agriculture, Government of Maharashtra, so as to create professional competence among them for the transfer of latest agricultural technologies developed by the University scientists. Since 2003 the offices of the Extension Agronomists were strengthened and four RAEECs were established at Parbhani, Aurangabad, Ambajogai and Latur.

RAEECs are organizing Monthly District Workshops, Pre-seasonal Trainings, State Level Trainings etc to impart techniques and knowledge to the staff working in the field of Agriculture, Horticulture, Sericulture, Fisheries, Animal Husbandry and Dairy and Allied fields. Besides these, field visits, diagnostic team visits, farmers rallies, field days, exhibition, group discussion, technical meetings, AIR and T & V programmes, crop demonstrations, etc are organized by the RAEECs. The feedback received by the scientists from farmers and extension workers are analyzed to solve the problems and to develop and modify technologies to suit the local farming situations.

The farm trials are planned in Zonal Research and Extension Advisory Committee (ZREAC) meeting and monthly district workshops are organized on farmers' field to test and study their suitability under their various agro-climatic conditions.

(ii) Extension Education Unit, Parbhani (EEU) :

The Extension Education Unit was established in 1975-76 with the objective to disseminate the recent technologies developed by the University to the farmers' fields.

(iii) Krishi Vigyan Kendras (KVKs) :

KVK at Aurangabad, Tuljapur (Dist. Osmanabad) and Khamgaon (Dist. Beed) were established during 1983, 2000 and 2010 respectively under the VNMKV, Parbhani with the financial support from ICAR, New Delhi and the University.

KVKs aims to reduce the time lag between the generation of technologies and their transfer to the farmers to increase agricultural production.

Other eight KVKs run by the Non-Government Organizations are also funded by ICAR. They perform their activities at their own as per guidelines given by the ICAR, New Delhi and the University.

(iv) Agricultural Technology Information Centre (ATIC) :

ATIC at VNMKV, Parbhani is functioning since January, 1, 2000 with the following objectives :

- To provide single window delivery system for seeds, planting materials and other products like bio-fertilizers, bio-pesticides, agricultural implements, processed products and literature etc.
- To provide direct access to the farmers to communicate developed technologies and inputs.
- To provide diagnostic and advisory services such as soil and water testing, plant and animal health clinic etc.
- To create mechanism for receiving feedbacks from the farmers and communication of the same to research system for solution or refinement.

Facilities of Internet, voice-mail, SMS and touch screen, telephone help lines are also provided at ATIC for easy and faster access and communication. Farmers can get up to date information through these facilities.

Linkages with Extension Agencies :

Most of the extension education programmes such as trainings, symposia, campaign, etc. are organized with the active cooperation and collaboration of the following extension education agencies. The human resource, physical facilities and equipments available with the Directorate and following extension agencies are collaborated among each other so as to achieve desired goals. This arrangement helps to share physical facilities and scientific man power to the mutual advantage of both. It enabled organization to improve its planning process by integrating various perspectives in single and strengthened the extension activities through cooperation and coordination which in turn reduced the duplication of work.

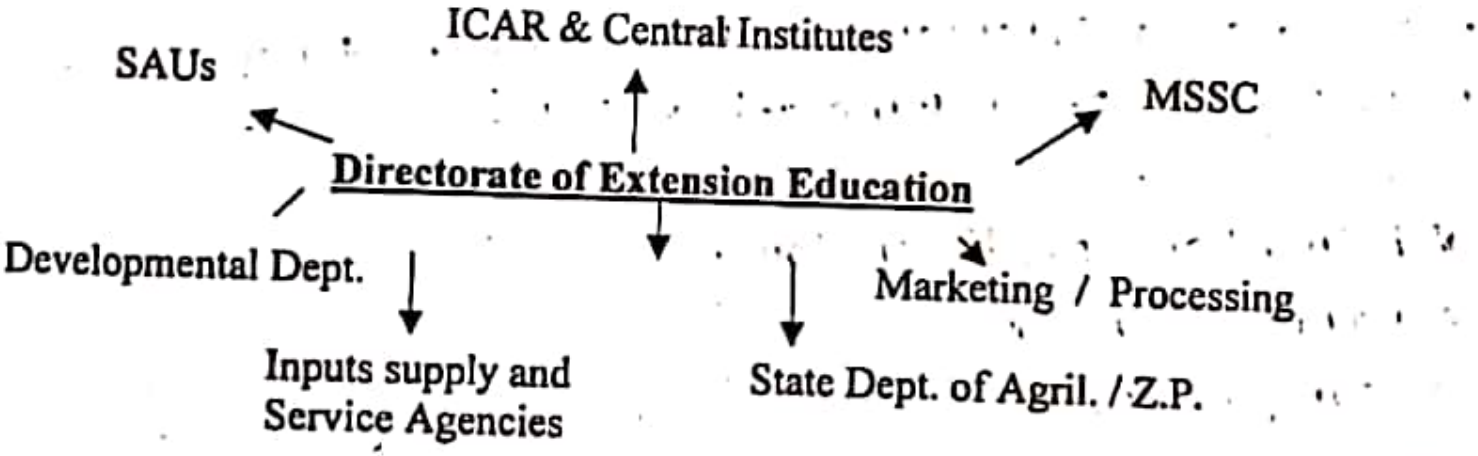

Fig. : Linkages with various Agencies

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Exercise No. 2

Organisation of Group Discussion

Meaning :

A Group of people organized for the purpose of (i) sharing information about specific topics and (ii) analyzing and evaluating that information to get some general conclusion or agreement.

Group discussion is that form of discourse which occurs when two or more persons, recognizing a common problem, exchange and evaluate information and ideas, in an effort to solve that problem. Their effort may be directed towards a better understanding of the problem, or towards the development of a programme of action related to the problem. Discussion usually occurs in a face-to-face or co-acting situation, with the exchange being spoken. And when more than two people are involved, it usually occurs under the direction of a leader.

Objectives :

1. Help in better understanding of the problem by pooling the knowledge and experience of a number of persons.
2. To generate new ideas and methods and select the rational ones through group interaction.
3. To act as a safety valve for reducing tension.
4. To plan a programme of action.

Types of discussions :

1) A small group discussion :

Here discussion takes place in a group of about six persons. If a group is big, it is divided into small group and each small group then discusses the topic. The leader of each small group presents the report of the discussion to the main group.

2) Panel discussion :

Here 3 or 4 experts with a Chairman, who introduce and guide them, discuss a particular topic according to a pre-conceived plan. The audience hear the discussion among the experts. The experts generally have a rehearsal. This type of discussion is very good for presenting a controversial subject.

3) Symposium :

This is a series of talks on different aspects of a single subject. Usually, there are 5 to 6 speeches, each of them not exceeding over twenty minutes. There is a Chairman who introduce the topic to be discussed and inform the audience about different speakers. He also introduce the successive speaker with appropriate introductory remarks and summarize the main features of the discussions at the end. He then presides over the discussion which generally follows the symposium. The advantage of this method is that it gives an opportunity to present full and systematic information without any interruption. As compared to the panel discussion it is easier to organize and present.

4) Workshops :

This is a special type of a working conference, usually of a week or more in duration. There are lectures and individual conferences and emphasis is given on small working groups. Workshops are generally used for professional improvement and in service training. They are organized around problems which the participants bring with them. Elements of a good workshop programme are as follows :

i) Lectures by experts
ii) A small group meeting. These groups should be selected according to the interests of the participants.
iii) Library facilities.
iv) Individual consultation and study.
v) Informal discussions.
vi) Recreational or social events.

5) Conference :

A conference is a gathering of people for a brief period for intensive discussions. They are usually held for period of between two and three days.

Various purposes that can be served by holding conferences are as below :

i) For presenting information – Usually experts read papers and thus provide factual information.
ii) Exchange of experiences – Through the exchange of experiences, delegates can learn a great deal from the success and failures of other.
iii) Training – Through conferences delegates can learn new skills or improve old ones.
iv) Problem solving – Through discussions delegates can get stimulation in problem solving.

6) Forum :

It is a discussion period that may follow any one of the above methods of presentation. It consists of a question period in which members of the audience may ask questions or make brief statements. It provides an opportunity for the audience to clear up obscure points and to raise questions for additional information.

Procedure :

1. Participants if more, are divided into subgroups.
2. Each group is assigned with specific topic.
3. In discussion somebody will be Chairman and a Reporter (Secretary).
4. A specific time limit is given.
5. In the plenary session each sub-group presents their report. The group leader takes this responsibility.
6. Questions are asked, clarifications are sought and expert comments are offered.

Role of group Chairman :

1. Introduce members if they are new to one another.
2. Announce the topic and purpose of discussion.
3. Give short summaries of the discussion from time to time whenever required.
4. Give clarification of vague statements.
5. Try to get balanced participation by controlling talkative persons and encouraging silent ones.
6. Remain personally neutral.
7. Give final summary of discussion.
8. Do not dominate the discussion, encourage lazy and causal participants to talk.
9. Never be emotional and impatient.
10. Do not favour any view against another, when there is conflict or difference of opinion among members.

Role of members :

1. Talk one at a time.
2. No private conversation with neighbours.
3. No speech making.
4. Listen attentively.
5. Be open mind.
6. Supply as much pertinent information as possible.
7. Stay on the subject.
8. Support the needed leadership.

Advantages :

1. People will get an equal opportunity to take part in discussion.
2. It creates high degree of interest.
3. Develops group moral.
4. Participants need not be good speaker.
5. Improves individuals capacity for participation and critical thinking.
6. Appeals to the practical type of individuals.
7. It is a cooperative effort.

Limitations :

1. Village factions may hinder the successful use of this method.
2. Group members must have self discipline.
3. It is not suitable for dealing with topics to which members are new.
4. It is a slow process.
5. Sometime farmers may not be able to join the group during busy season.

Project practical :

Organise group discussion on one topic of interest. Record proceedings in the practical record.

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Exercise No. 3

Handling and Use of Digital Camera

History :

The history of the digital camera began with Eugene F. Lally of the Jet Propulsion Laboratory, who was thinking about how to use a mosaic photosensor to capture digital images. His 1961 idea was to take pictures of the planets and stars while traveling through space to give information about the astronauts' position. As with Texas Instruments employee Willis Adcock's filmless camera (US patent 4,057,830) in 1972, the technology had yet to catch up with the concept.

Steven Sasson as an engineer at Eastman Kodak invented and built the first electronic camera using a charge-coupled device image sensor in 1975. Earlier ones used a camera tube; later ones digitized the signal. Early uses were mainly military and scientific; followed by medical and news applications.

In 1986, Japanese company Nikon introduced the first digital single-lens reflex (DSLR) camera, the Nikon SVC. In the mid-to-late 1990s, DSLR cameras became common among consumers. By the mid-2000s, DSLR cameras had largely replaced film cameras.

In 2000, Sharp introduced the world's first digital camera phone, the J-SH04 J-Phone, in Japan. By the mid-2000s, higher-end cell phones had an integrated digital camera. By the beginning of the 2010s, almost all smartphones had an integrated digital camera.

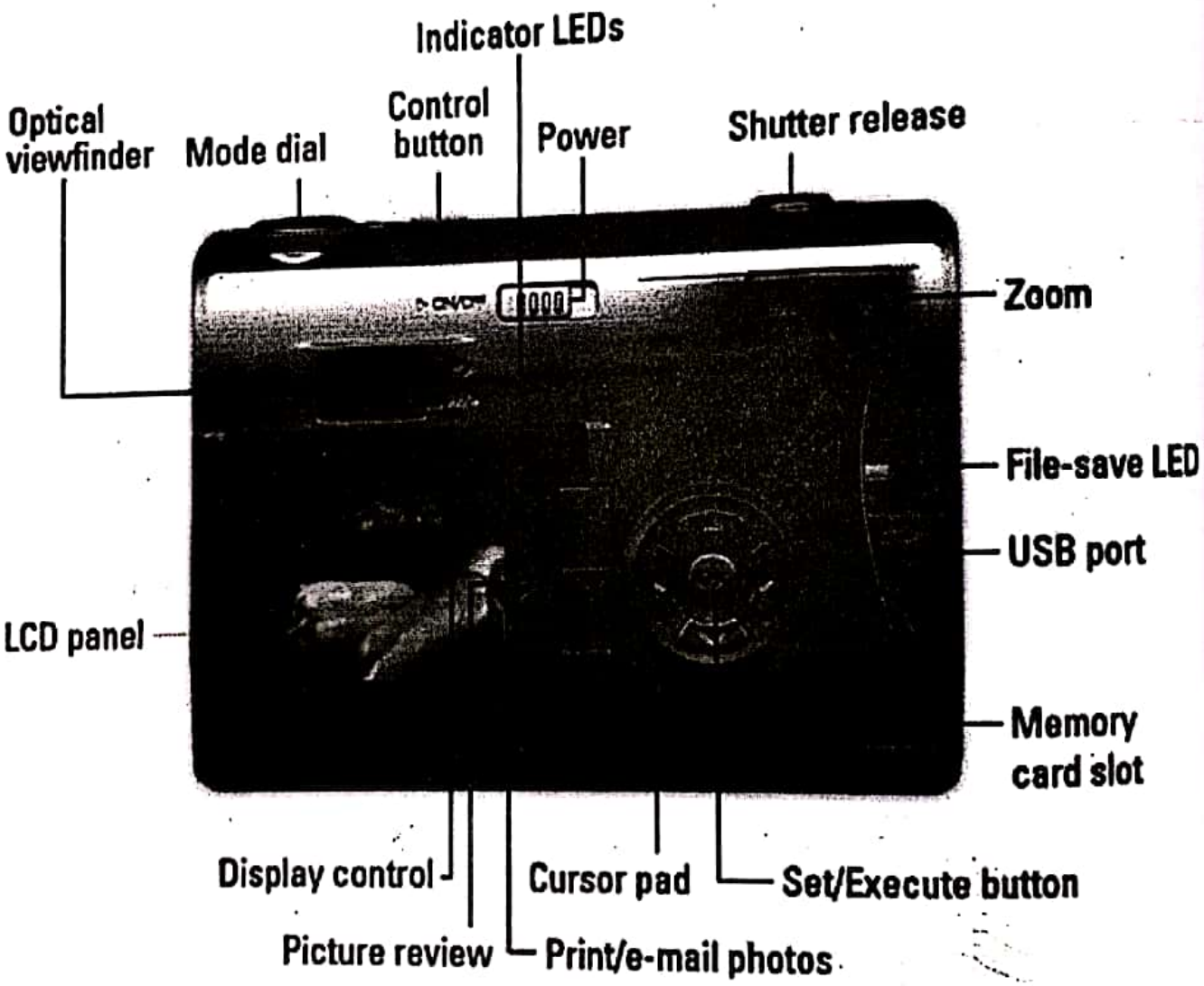
Digital cameras come in a wide range of sizes, prices and capabilities. In addition to general purpose digital cameras, specialized cameras including multispectral imaging equipment and astrographs are used for scientific, military, medical and other special purposes.

Use of camera :

- Keeping a record of friends and Family
- Create insurance records
- Create graphics for web sites
- Create virtual reality tours
- Make your own photo business cards
- Produce your own clip art
- Textures and objects for presentations
- Create digital photographic art
- Record a event or meeting

9 (A)

Digital Camera



Types of digital camera :

Compacts

Compact cameras are intended to be portable (pocket able) and are particularly suitable for casual "snapshots".

Rugged compacts

Rugged compact cameras typically include protection against submersion, hot and cold conditions, shock and pressure..

Action cameras

GoPro and other brands offer action cameras which are rugged, small and can be easily attached to helmet, arm, bicycle, etc.

360-degree cameras

The 360-degree camera can take picture or video 360 degrees using two lenses back-to-back and shooting at the same time.

Bridge cameras

Bridge cameras physically resemble DSLRs, and are sometimes called DSLR-shape or DSLR-like. They provide some similar features but, like compacts, they use a fixed lens and a small sensor.

Mirrorless Interchangeable-Lens Cameras

In late 2008, a new type of camera emerged called mirrorless interchangeable-lens camera (MILC), which uses various sensors and offers lens interchangeability. These are simpler and more compact than DSLRs due to not having a lens reflex system.

Modular cameras

While most digital cameras with interchangeable lenses feature a lens-mount of some kind, there are also a number of modular cameras, where the shutter and sensor are incorporated into the lens module.

Digital Single-Lens Reflex Cameras

Digital Single-Lens Reflex Cameras (DSLR) use a reflex mirror that can reflect the light and also can swivel from one position to another position and back to initial position.

Digital Single Lens Translucent (DSLT) cameras

A DSLT uses a fixed translucent mirror instead of a moving reflex mirror as in DSLR. A translucent mirror or transmissive mirror or semi-transparent mirror is a mirror which reflects the light to two things at the same time.

Digital rangefinders

A rangefinder is a device to measure subject distance, with the intent to adjust the focus of a camera's objective lens accordingly (open-loop controller). The rangefinder and lens focusing mechanism may or may not be coupled.

Line-scan camera systems

A line-scan camera traditionally has a single row of pixel sensors, instead of a matrix of them. The lines are continuously fed to a computer that joins them to each other and makes an image.

Stand alone camera

Stand alone cameras can be used as remote camera.

Principles of photography

1. Casting the image of an object on a photosensitive layer in a dark box (focusing)
2. Recording the image by allowing it to fall for a short time on a layer of light sensitive silver salt (shot).
3. Rendering the latent image visible by increasing the size of the invisible small silver particles of which it consists (developing).
4. Dissolving away the unaffected silver salts (silver bromide or silver chloride- for fixing the image), thus rendering the silver image permanent.

Major parts of camera :

Lens :

The lens, which is made of glass, is used to let light into the camera. Some cameras have a single, built-in lens while others have detachable lenses. The type of lens you use affects the appearance of the image. Some lenses create distortion, while others create a very close approximation to what is seen with the human eye.

Viewfinder :

The viewfinder is the area on the camera that you look through in order to compose your shot. For some cameras, an LCD screen is used as a viewfinder, or your camera may have the option to use either one. Once your photo is taken, it may not look exactly like what you see through the viewfinder. Factors such as lighting, lens, camera settings and your camera's capabilities will affect the finished result. Because of this, the viewfinder is not intended as a preview of your photo, but rather a tool to aid you in taking it. You, as the photographer, determine the final result.

Mode Dial :

Most cameras today have a variety of functions and automatic features. The mode dial allows you to select different options, such as automatic mode, program mode, sport mode or macro mode. Older cameras may not have a mode dial, because all of the settings are manual. There are also some compact cameras that use a touch-screen for selecting options instead of a dial.

Focus Ring :

Film or digital SLR cameras will most likely have a focus ring. This is a ring typically found on the lens that allows manual control of the camera's focus. You can decide if you want the whole image in focus, or just a part of it. Many cameras have an auto-focus feature in addition to the focus ring. Other cameras, such as point-and-shoot cameras, will not have a focus ring at all, as all of the focus is set automatically.

LCD Screen :

The majority of cameras on the market today come standard with an LCD screen. Older film and digital cameras may not have one. The LCD screen is used to view and change options and settings, view pictures after they are shot, and on some cameras, as a viewfinder. Some cameras allow you to edit photos while they are still on camera, and the LCD screen makes this possible.

Shutter Release Button :

Every camera comes equipped with a shutter release button. This is simply the button on the camera that is used to snap the picture. It opens and closes the shutter, allowing the necessary light and information to enter the camera. The amount of time the shutter stays open depends on what you have your shutter speed set to.

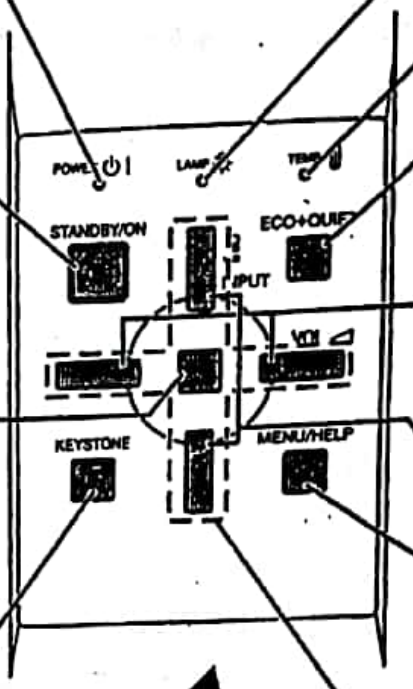
Characteristics of Great Photos :

1 – Has a great composition (must have)
2 – Captures emotion
3 – Tells a story
4 – Leaves something to the imagination
5 – Captures an iconic moment
6 – Presents the unique
7 – Juxtapositions contrasting concepts
8 – Uses unique lighting and color
9 – Shows overlooked detail
10 – Uses a unique perspective

Liquid Crystal Display (LCD)

Projector

Top View



Power indicator **25, 48**

STANDBY/ON button **25**
For turning the power on and putting the projector into standby mode.

ENTER button **37**
For setting items selected or adjusted on the menu.

KEYSTONE button **28**
For entering the Keystone Correction mode.

25, 48 Lamp indicator

48 Temperature warning indicator

32 ECO+QUIET button
For lowering the noise of the cooling fan and extending the lamp life.

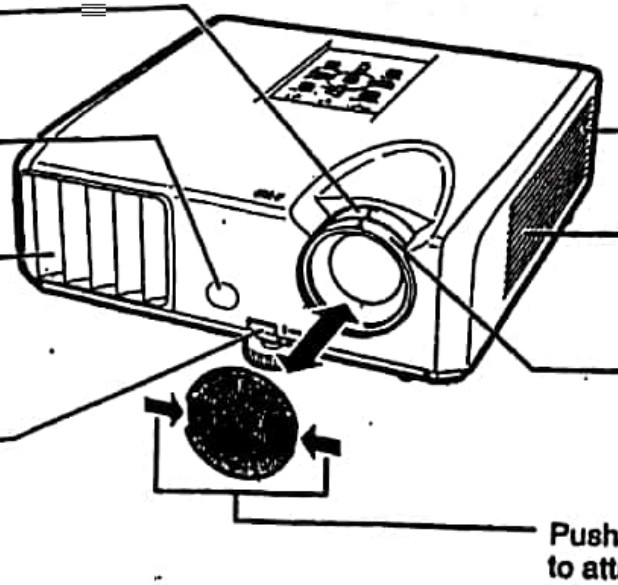
29 VOL (Volume) buttons (−◄/►+)
For adjusting the speaker sound level.

29 INPUT buttons (▲/▼)
For switching input mode.

37, 46 MENU/HELP button
For displaying adjustment and setting screens, and help screen.

37 Adjustment buttons (▲/▼/◄/►)
For selecting menu items.

Front View



Zoom ring **26**
For enlarging/ reducing the picture.

Remote control sensor **15**

Exhaust vent **47**

HEIGHT ADJUST lever **27**

47 Intake vent

43 Speaker

26 Focus ring
For adjusting the focus.

Push both sides of the lens cap to attach or remove.

Exercise No. 4
Handling of Liquid Crystal Display (LCD)

Liquid Crystals :

A thermotropic liquid crystalline phase occurs in some substance in a temperature region between the solid and liquid states. In this state the substance possesses some properties of both liquids and solids. A liquid crystal is a fluid like a liquid.

Introduction to Liquid Crystal Displays :

The most common application of liquid crystal technology is in liquid crystal displays from the wristwatch and pocket calculator to an advanced VGA computer screen. This type of display has evolved into an important versatile interface. LCD consists of an array of tiny segment (called pixels) that can be manipulated to present information. LCD consists primarily of two glass plates with some liquid crystal material between them. There is no bulky picture tube.

We can use the LCD Projection panel for many activities :

1) Demonstration
2) Small group presentation
3) Large group composition.

LCD Principle :

There are currently two projector technologies being used by manufactures. LCD is the established technology used by most of the leading manufactures. Light from a powerful lamp is split into red, green and blue and then channeled through three panels made up of liquid crystal dots or pixels. Electric currents is used to switch individual pixels off or on in each of the panels, there by letting the different colour light through two make up the image.

Liquid Crystal Display (LCD)

Rear View

Terminals

AUDIO 1 input terminal 23

DVI-D input terminal 21 22
Terminal for DVI digital RGB and digital component signals.

COMPUTER/ COMPONENT 21 22
Input terminal
Terminal for computer RGB and component signals.

AUDIO OUT 23
terminal
Audio output terminal of equipment connected to the audio input terminal.

MONITOR OUT 23
terminal
(Output terminal for computer RGB and component signals.)
Terminal for connecting a monitor.

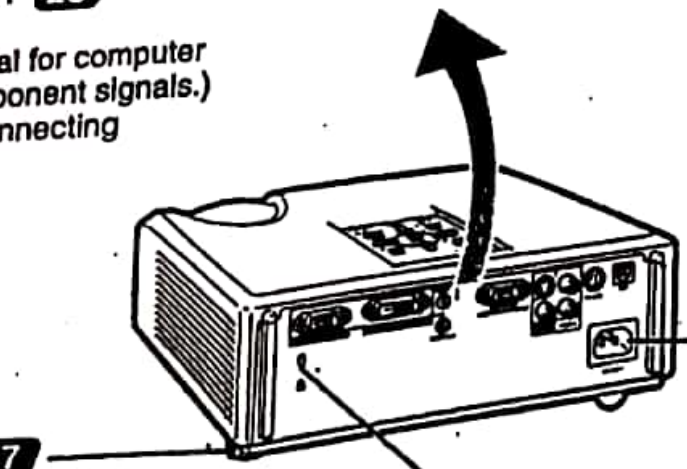
22 S-VIDEO input terminal
Terminal for connecting video equipment with an S-video terminal.

24 RS-232C terminal
Terminal for controlling the projector using a computer.

34 USB terminal
Terminal connecting with the USB terminal on the computer for using the supplied remote control as the computer mouse.

23 AUDIO 2 input terminal

22 VIDEO input terminal
Terminal for connecting video equipment.



24 AC socket
Connect the supplied power cord.

27 Rear adjustment foot

Kensington Security Standard connector

LCD set up and projection :

1. Place the projector facing wall or screen at required distance.

2. Connect the projector to the computer and plug the power cord into the AC socket on the rear of the projector. Thus plug into AC outlet.

3. **Remove the lense ca0p and turn the projector on by pressing STAND BY / ON on the remote control.**
   - The power indicated illuminates green.
   - Then projector is ready to start operation.

4. **Adjust the projected image with the setup guide.**
   - After projector turns on, the setup guide appears.
   - Follow the steps in the set up guides and adjust the focus picture size, and highest angle.
   - After adjusting the focus, height angle and picture size, press ENTER to finish the setup guide.

5. **Correct traperoidal distortion.**
   - Correcting treaproidal distortion using key and true correction.
   - the function for correcting treaproidal.
   - Press key stone to enter the key stone correction mode.

6. **Select the INPUT mode.**
   - select the appropriate input mode for the connected equipment.
   - Press, COMPUTER, DVI, S-VIDEO or VIDEO on the remote control to select the input mode.on

7. **Turn the computer on**

8. **Adjusting the Projected image :**

(i) **Adjusting the focus :**
- You can adjust the locus with the focus ring on the projector.
- Rotate the focus ring to adjust the focus while watching the projected image.

(ii) **Adjusting the picture size :**
- You can adjust the picture size using the zoom ring on the projector.
- rotate the zoom ring to enlarge or shrink the picture size.

Liquid Crystal Display (LCD)

Image Projection

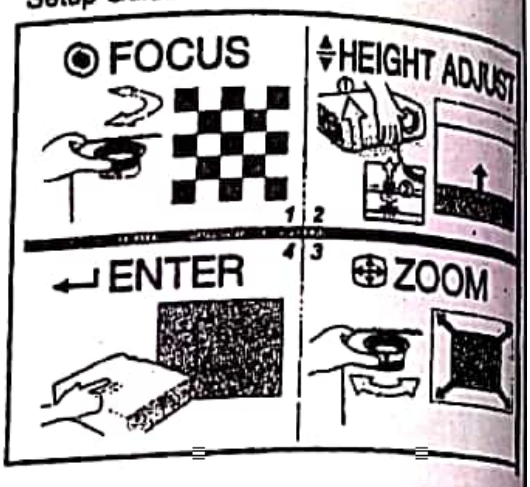
About the Setup Guide

After turning on the projector, the Setup Guide screen appears to assist you with projector setup.

Guidance items
1 FOCUS
2 HEIGHT ADJUST
3 ZOOM

Press ENTER to exit the Setup Guide screen.

Setup Guide screen



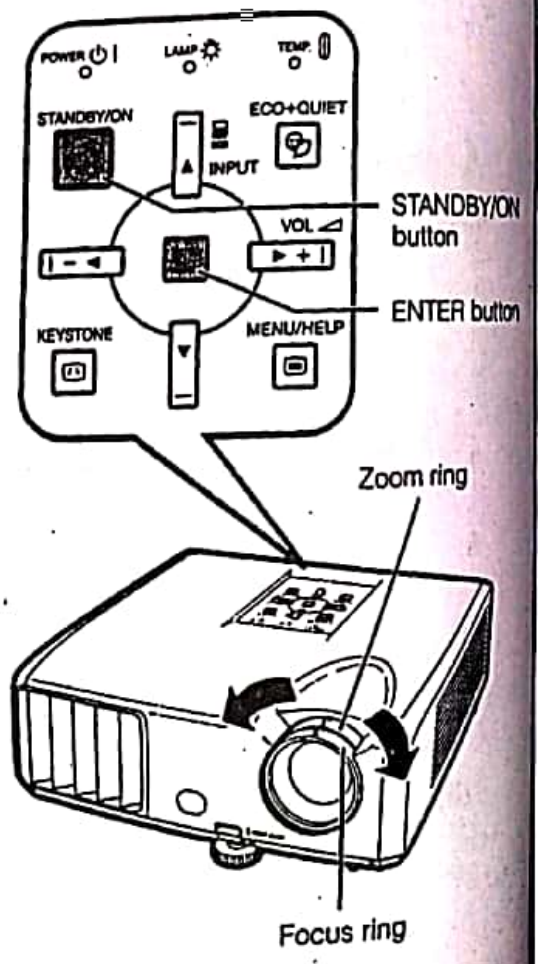
Note

- The Setup Guide screen automatically highlights the items in the following order:

1 FOCUS → 2 HEIGHT ADJUST → 3 ZOOM → 4 ENTER →

However, you can adjust the focus, height (angle), or zoom regardless of the highlighted item.

- If you do not want to display the Setup Guide for the next time, set "Menu" - "SCR - ADJ" - "Setup Guide" to "Off". (See page 42.)



Adjusting the Projected Image

1 Adjusting the Focus

You can adjust the focus with the focus ring on the projector.

Rotate the focus ring to adjust the focus while watching the projected image.

2 Adjusting the Picture Size

You can adjust the picture size using the zoom ring on the projector.

Rotate the zoom ring to enlarge or shrink the picture size.

(iii) **Adjusting the height :**

- The height of the projector can be adjusted using the adjustment feet at the front and rear of the projector.

When the screen is above the projector, the projection image can be made higher by adjusting the projector.

(i) Lift the projector to adjust the height while lifting the HEIGHT ADJUST lever.

(ii) Remove your hands from the HEIGHT ADJUST lever of the projector after its height has been finely adjusted.

- The angle of projection is adjustable up to approximate 9 degrees from the surface on which the projector is placed.

(iii) Use the rear adjustment foot to make the projector level.

- The projector is adjustable $\pm$ 2 degree from the standard position.

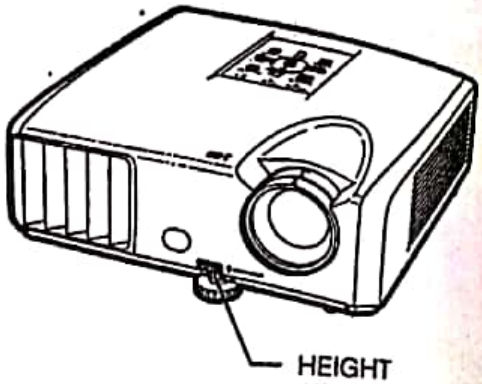
9. **Turn the power off :** Press STANDBY / ON on the projector or on the remote control and then press the button again while the confirmation message is displayed to put the projector in to standby mode.

Liquid Crystal Display (LCD)

3 Adjusting the Height

The height of the projector can be adjusted using the adjustment feet at the front and rear of the projector.

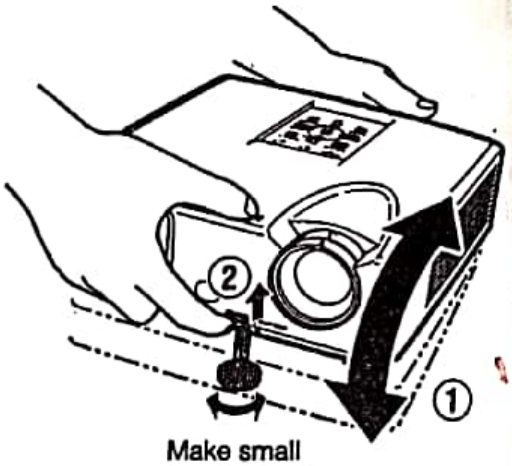
When the screen is above the projector, the projection image can be made higher by adjusting the projector.



1 Lift the projector to adjust its height while lifting the HEIGHT ADJUST lever.

2 Remove your hands from the HEIGHT ADJUST lever of the projector after its height has been finely adjusted.

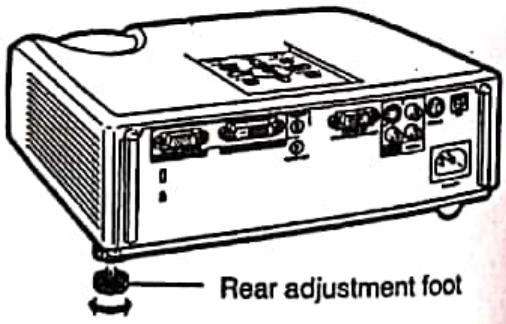
- The angle of projection is adjustable up to approx. 9 degrees from the surface on which the projector is placed.



Make small adjustments.

3 Use the rear adjustment foot to make the projector level.

- The projector is adjustable ±2 degree from the standard position.



Rear adjustment foot

Note

When adjusting the height of the projector, trapezoidal distortion occurs. Follow the procedures in Keystone Correction to correct the distortion. (See pages 28 and 41.)

Info

Do not apply too much pressure on the projector when the front adjustment foot comes out.
When lowering the projector, be careful not to get your fingers caught in the area between the adjustment foot and the projector.
Hold the projector firmly while lifting or carrying. Do not hold by the lens area.

20 x 8

2nd semister

Specifications :

Sr.No.	Particulars	Specification
1.	Model	XR-40X / XR-30X / XR-30S
2.	Display device	0.55" DLP* Chip
3.	Resolution	XR-40X / XR-30X XGA(1024x768) XR-30S SVGA (800 x 600)
4.	**Lens**	
a.	F number	F 2.5-2.6
b.	Zoom	Manual, x1.15 (f=20.4-23.5 mm)
c.	Focus	Manual
5.	**Input material**	
a.	DVI-D (Compatible with HDCP)	X 1
b.	RGB / Component (mini D-sub 15 pin)	X 1
c.	S-video (mini DIN 4 pin)	X1
d)	Video (RCA)	X1
e)	Audio (3.5mm stereo minijack)	X1
f)	Audio (RCA)	X1 (L/R)
6.	**Output terminal**	
a.	RGB / Component (mini D-sub 15 pin)	X1
b.	Audio (3.5 mm stereo minijack)	X1
7.	**Control others**	
a.	USB (Type B)	X1
b.	RS-232C (mini DIN 9 pin)	X1
8	**Speaker**	2 W (Mono)
9.	Projection lamp	200 W
10	Rated voltage	AC 100-240 V
11	Rated frequency	50/60 Hz
12	Input current	2.9 A
13.	Power consumption (Standby)	283 W (4.3 W) with AC 100 V 270 W (4.4 W) with AC 240 V
14	Operator temperature	41 °F to 95 °F (+5°C to +35°C)
15	Cabinet	Plastic
16	Dimensions (main body only)	10 41/64 x 3 33/64 x 10 7/18
17	Weight (approximate)	6.4 lbs (2.9 kg)

Project practical :

The students will draw a diagram of LCD and will get acquainted with its parts.

.....

Exercise No. 5
Handling and Use of Public Address Equipment (PAE) System

Audio materials appeal to the sense of hearing. A major advantages of audio-visual is that communication can be achieved even though the audience is not seen the communicator.

Definition :

Public Address system is a set of equipments to amplify sound so that it is audible to large audience over a distance.

Principle :

- The microphone converts sound waves into alternating electric current Ampli.
- The Amplifier is an electronic device to amplify these electric currents.
- These amplified electric current are fed into the loud speaker.
- where they are converted into sound waves and the magnified sound is heard.

Types of amplifier :

- AC supply (alternative current)
- DC supply (Direct current) – Dry battery
  Wet battery

What is Public Address Equipment (PAE) System

Public Address Equipment system is generally used to produce loud sound. It consists of a three essential parts :

i) Microphone
ii) Amplifier
iii) Loud speaker.

It is used to amplify and reinforce sound. It is based on magnetic principle.

i) Microphone (pickup) :

It is the name given to the device that changes mechanical vibration into electrical vibrations. The common pickups used in the modern audio equipments are microphones, record player, cartridges and photo electric cells.

ii) Amplifiers :

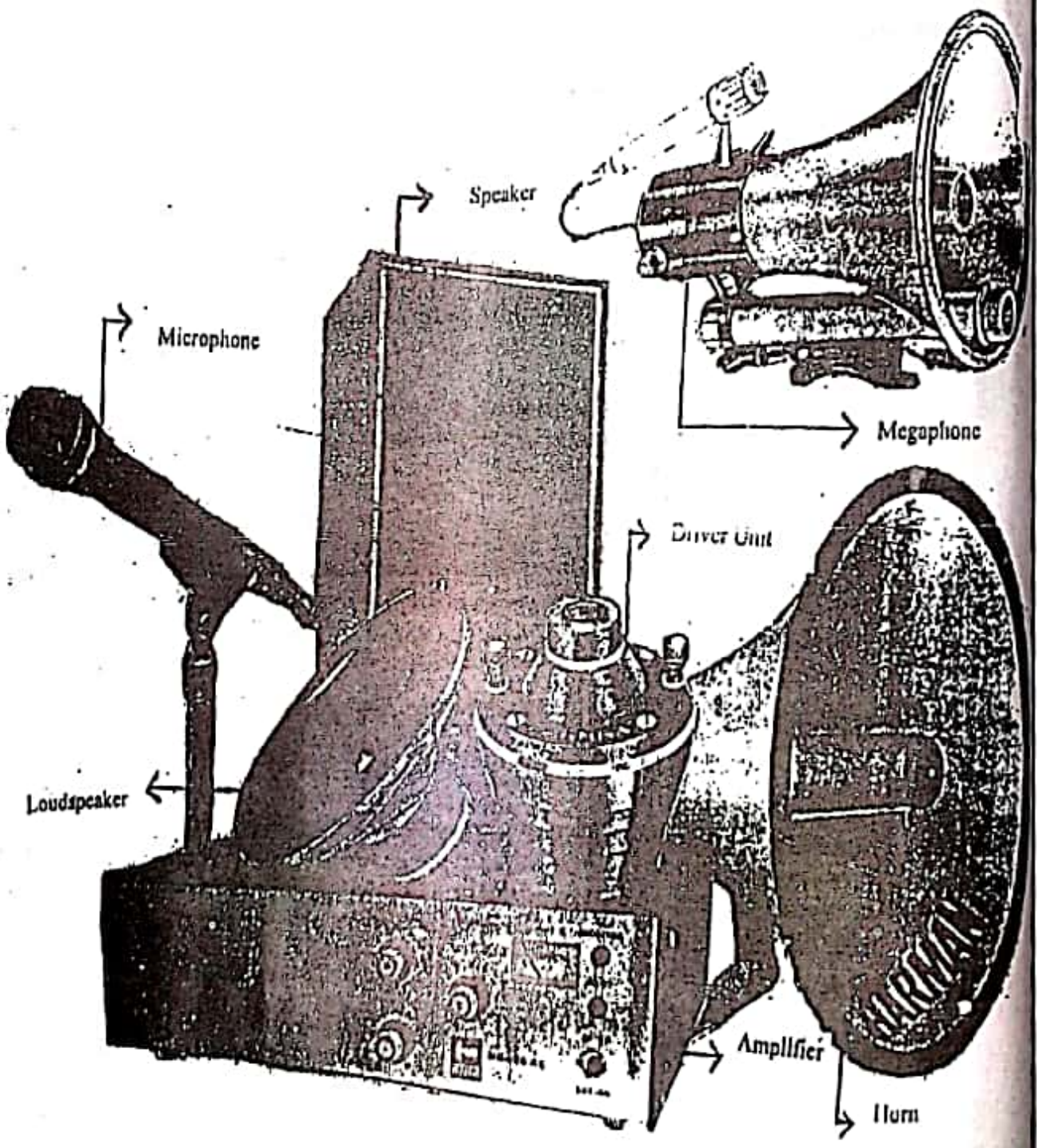
They build up the power of small electrical vibrations produced by the pickups (microphone).

iii) Loud speaker :

They reproduce the sound, the reproduction of the sound through reproducers (loud speaker) should be good quality with low distortion and should be governable from bass and tremble.

17 (A)

Public Address Equipment System



Different parts of P.A. Equipment system :

1. Amplifier
2. Horn and Unit (speaker)
3. Microphone
4. Microphone cord
5. Microphone stand
6. Output selector
7. Input cord
8. Speaker cord
9. Control panel

Steps of operation :

1. Determine the types of Amplifier whether it is AC or DC.
2. Determine the types of microphone (single or all waves)/
3. Connect the microphone into the proper input terminals of the amplifier.
4. Connect the loud speaker to the proper output terminals of the amplifier.
5. Switch on the amplifier and see that it's pilot lamp glows.
6. The volume control which is in the circuit of the microphone should be operated and other unused volume controls should be kept at their minima.
7. For testing microphone repeat some word like 'Mike tested'. Never blow air from your mouth because it is moist which damages the microphone.
8. Place the microphone at a distance of about 8-10 inches / 25 cm from the speaker.
9. Never put loud speaker in front of speaker but put it in front of audience.
10. Do not tap by fingers on microphone / speaker for sound testing.

Public Address Equipment system is used at general and special meetings and also in different teaching situation when there are more number of people in the audience.

Project practical :

1. Draw a diagram of Public Address Equipment system and get acquainted with the parts.
2. Handle the Public Address Equipment System.

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Exercise No. 6
Preparation of Extension Literature Leaflet, Folder

Literature is the basis of any teaching programme. In extension teaching simple leaflets and pamphlets is valuable and essential tool in the hands of the intelligent extension worker.

(A) Leaflet

A leaflet is usually -

- Single sheet of printed matter sometimes folded one.
- Provides precise and scientific information in simple language.
- Single practice or item of interest
- Serves the immediate need of the farmer.

Pamphlet :

The pamphlet varies in size from 12 to 24 pages. The difference is arbitrary and may sometimes refer to a leaflet as a pamphlet or it may be the other way round.

A pamphlet or bulletin on the other hand may contain many pages and treat number of topies or steps in a given problems.

How to write :

1) **Plan the script :**

(a) Decide your message -
- Select the urgent need of the farmer
- Have one single practice or idea at a time.

(b) Note down all appropriate points.
- Decide the essential points.
- Finally arrive at the desirable points.

c) Select the most important one from the essential points. This forms the central theme.

(d) List the remaining essential points in logical order and group the desirable points under appropriate points.

2) **Write the script :**

a) Write all essential points in sequence.
- add desirable points, supporting the essential one.

b) Make most important points to each the readers interest.

c) Write simple, short sentences.
- Use familiar words
- Be clear in your words and sentences.

d) address your sentences to your reader.

e) Lead him to action.

f) Be accurate in information.
g) Be brief
h) Use illustrations and pictures in appropriate place
i) Start with an appeal which will benefit to the reader.
j) give details with reference to the local situation.
k) Round up with confirming what you said at opening of your leaflet. It will reassure your readers.
l) attractiveness of leaflets can be increased by using different colour of papers or ink and illustrations or photographs.
m) Mention the source, where further information can be obtained.

3) Review the script :

a) Go over the writing after the completion of it over after a day.
b) Remove the defects and rewrite, where required.

Advantages : Leaflets have several advantages. They are -

a) Economical
b) Relatively easily prepared and quickly prepared
c) Can be preserved and used by the readers.
d) Supplement other information and media.

Limitations :

1. It is of little use in areas of low literacy.
2. Chances and loosing its significance if not carefully prepared.
3. Periodical revision is necessary to keep the publication up-to-date.

Project practical :

Prepare one leaflet on the package of practices of one crop.

(B) Folder

Definition :

A folder is a single piece of paper folded once or twice. When opened, material is presented in a sequence.

How to write :

1) Make sure that the sequence appears in a finished folder, if not reader may confused.
2) Folders are normally printed on paper heavier than flyers so thay have may longer life.
3) Folders are usually prepared on 'offset' on a heavier paper.
4) Folders are made more attractive by using photograph line drawing and various colour inks and paper.

5) A four inch by eight inch (4" x 8") folder is quite attractive.

6) there is not set rule in size.
A width to length ration 1:1 ½ may be more suitable when paper size permit without waste. The basic consideration that the publication size fits the paper stock, thus eliminating excessive trimming.

7) Folders are not distributed as freely and indiscriminately as are flyers because they are cost more.

Purpose :

1. To provide precise and reliable scientific information given in simple language about a single practice.
2. To serve the immediate needs of the farmer like control of pests, campaign against rats, treatment of seed, midgefly control.

Procedure :

1. Write on one simple practice or idea at a time.
2. Select topics related to the urgent needs of the farmer.
3. Write in simple, short sentences and paragraphs, in the local language.
4. Use illustrations and pictures.
5. Give complete directions (after checking on their correctness).

Advantages :

1. Can reach a large section of literate people.
2. Can be preserved and used for reference purposes.
3. Comparatively cheap.
4. Accurate information and minute details can be given.
5. Can be easily prepared.
6. Can be used to maintain or increase the tempo of work.
7. Can be used to continue contacts.
8. Can be used to enhance the prestige of local leaders and groups.
9. Can promote literacy.

Limitations :

1. It is of little use in areas of low literacy.

Project practical :

Prepare one folder on the value added product of milk.

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Exercise No. 7

Preparation of Effective Power Point Presentations

Power point presentation :

Power point presentations are one of the most comfortable ways which facilitate an individual to leap out from of the conference by delivering a rattling presentation. These interesting power point presentations can be prepared quickly and updated when desired. The best part of any power point presentation is that one can add visual effects to the presentation to snaffle the attention of others. They stand to be an effective form of demonstration as they support communication, focus on the subject and also picture problematical concepts. With the state of art technology, any presentation today either business or academics utilize power point as their strong tool to deliver ideas. Only an effective PowerPoint presentation can tie the audiences and keep them engaged. It's a challenge to grab the attention of the audience and keep them attentive during the presentation. This can be achieved by effective power point presentations. Let's run through few points about how to prepare effective power point presentation.

Tips for Making Effective PowerPoint Presentation

The following mentioned are few power point presentation tips and guidelines on how to make a power point presentation and tips for creating effective presentation slides.

1. Design

Only a perfect design can finish your presentation with a professional touch and make it look neat.

2. Proper visual usage:

Most good presentations are complimented due to best visuals, the use of proper visuals plays a key role in presenting an effective presentation. To make an effective presentation with visuals these few points can be kept in mind before designing.

- Always utilize font greater than 24, which makes it visible to the public. Smaller font would make it unable to read with too much information on the slide.
- Utilization of precise points with bullets would be ample. Power point presentations do not need full paras of information.
- When images are used in the presentation they should be added with a short text, that makes presentations more effective.
- Do not read the presentations from the slides and avoid having many slides during presentation.
-

3. Usage of mandatory elements:

Another important factor to make your presentation effective is to use the same font and size throughout the slides. It is also suggested to match the right colors, infix

the company logo, prepare special frames for figures, and spotlight the headers. But remember not to exaggerate all these categories.

4. Stick to natural style:

The presentations should be professional and neat. Never try to amaze the audience with overall styles, or try to bring in visual magic in the same. Presentations should mainly focus on the comfort of the viewer. Follow a natural pattern and make presentation lively.

5. Picking the right colors:

One should always be groovy on picking the right mix of colors for presenting. Colors are another feature which attracts the audience and keeps them involved.

6. Limit the usage of power point tools:

Power point is an excellent presentation tool which holds abundant tools. So it is never a good idea to use all the tools for presentation.

Few tips to make your presentation professional and neat are:

- The usage of bulleting in power point presentation should be decided by the user relevant to the topic.
- Employing fonts like Cambria and Calibri can be avoided as they present your slides unexpressive.
- Another major default is the shadow formation and leaving behind blue shapes which can be removed.

7. Planning script:

Many presentations are presented without a valid reason and theme, so it is always a good choice to plan a script and illustrate slides with thoughts to reach the audience. Prior arranging the slides just make an outline of what is to be presented and how.

8. Make simple slides:

Professional powerpoint presentations should be simple and neat with mandatory keywords, remember slides are just to help and support your speech and not a replacement. Never read from the slides as an audience would be bored, offer an interesting speech and talk freely.

9. Avoid paragraphs:

Plan your presentation with lines emerging one by one accompanied with bullet points rather than having a cluster of paras.

10. Embed font files:

When the presenter moves from one computer to the other, the fonts change. This happens since the presentation computer is not installed with the font files. To overcome this issue, save a power point presentation this way, click on save then move to save as now select embed true type font check box and give ok. This helps out your font to remain constant and never change when moving to other computers.

11. Express a message through presentation:

Always try to express a message at the end of the presentation. Images are another important feature for any presentation as audience is eager to look at and hear from you. Your speech accompanied with good visual images helps them understand better.

12. Minimal usage of images:

Images can be interesting for some audience and boring for the other set. It isn't a good thought to use too many images at the same time. The slides can hold hands with image when there is any important idea to be discussed. Utilizing power point built in clip art is never a good idea.

13. Focus on yourself too:

It is very important to learn that slides aren't the only part of presentation. Apart from slide presentation, behavior and own presentation manner are important. The way the presenter stands, wears, walks around and speaks is noticed. The presenter is the main part of the presentation and all eyes are focused on them though the slides are quite interesting.

14. Fresh up and energize the audience:

Open up the presentation with something refreshing, making them smile, or something that would energize them and keep lively.

15. Test Audience knowledge by asking questions:

Questions are something which rise up interest, curiosity and build awareness within audience to learn and speak out.

16. Use more images:

Usage of more images than text can be a good delight for audience eyes but never overdo the same. An image can express more thoughts than words, so images can be used.

17. Right usage of animation and media:

Sophisticated ideas can be well explained with animations, this helps better understanding of the concept where the audiences can understand the message. By keeping the target and content in mind, animation and media can be employed.

18. Target your presentation towards audience:

Prepare a presentation keeping the mentality of the audience. The knowledge level they possess and what they need from the presentation is quiet important.

19. Good practice can deliver perfect presentation:

Before stepping in for presentation, good practice with enthusiastic talk can pull in the attention of the audience.

20. Maintain time limit:

It is always a good suggestion to prepare material according to the time limit. Presentation should be completed within the time such that audiences are able to learn what they require

21. Learn navigation for presentation:

It is always better as the presenter learns navigating between presentation slides, since the audience may ask for previous slides if doubts resists.

22. Have an alternative option:

Always have plan B or any other alternative option in case of technical difficulties. This will help you to complete your presentation rather giving off.

23. Face the audience:

Many presenters face the slide presentation instead of the audience, this will make the audience lack interest and under estimate the presenter. The presenter is supposed to look at the audience and speak.

24. Regarding abbreviations and sentences:

It is suggested to avoid long sentences in the slides. Apart from that abbreviations and acronyms can also be avoided this may confuse the audience. The punctuation marks used in the slides can also be limited.

25. Usage of capital font:

Use capital letters only for headings and not anywhere else in the slide presentation and also make sure to use the same border throughout the presentation.

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Exercise No. 8

Writing of News Stories

Definition :

A news story is an account of events in sequence. It is used mainly to get information to many people quickly.

Source of agricultural new stories :

Some of the sources of news material are

1. Results of demonstrations,
2. Review of research publications,
3. Accomplishments of farmers, accounts, meetings etc.

Kinds :

Extension news stories tend to group themselves into one or more of the following categories :

- Advance event articles.
- follow up event articles.
- Information articles.
- feature articles.
- Experience and success stories.
- New developments.
- Predictions
- Subject matter.

Writing the Story :

News structure :

a) Heading :

It is capsule opening center of the top of news. Heading must summarize the entire news which arouses interest. It should be brief, clear and stimulating. Effective words should be used to make it meaningful and catchy

b) Lead :

the lead is the opening part of a news story or the introduction of the story. It is a condensed news which gives abstract of entire information.

Most of the news lead falls into following two major forms :

I) Summary lead :

the name is self explanatory, because a lead written in this form summarises its story. A summary lead is expected to answer as many as possible of the six questions :

- Who ?
- What ?
- When ?
- Where ?
- Why ?
- How ?

ii) Suspended interest lead :

Placing the real climax or feature of a story some where other than in the lead is effective and exciting in what is known as the suspended interest story. Often the climax in a story is in the final paragraph.

c) Body :

It gives detail information about the event. It should be made simple, clear and easy to read.

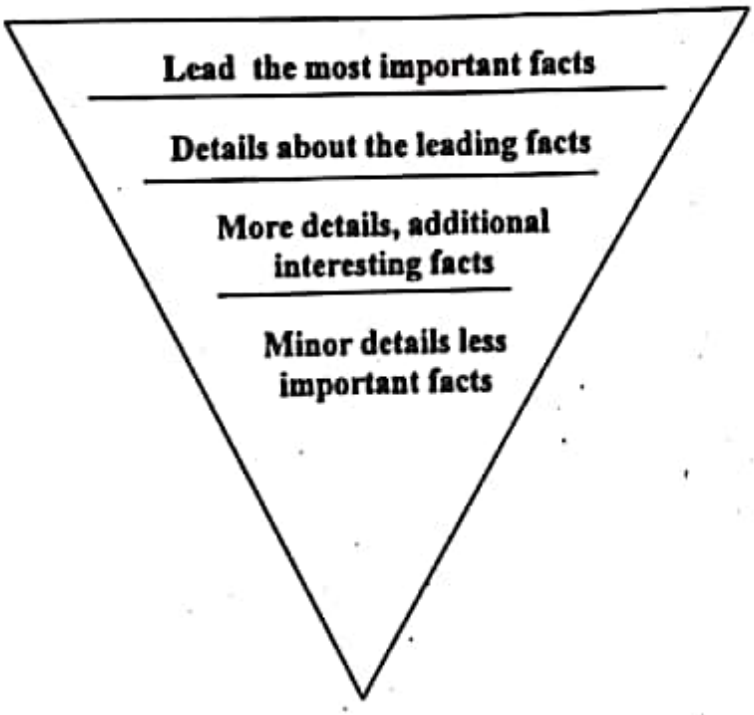
Forms of news writing :

a) Inverted pyramid pattern :

It is common to represent the structure of the news story, with lead or the summary or the most important facts forming the base, at the top, and the more important detail in one or two paragraphs, followed by more detail and additional facts supporting the main news. The minor detail and the less important facts form the apex at the bottom of the news story.

Diagrammatically this can be presented as below :

(Pyramid Structure of News Writing)



b) Chronological form :

Sometimes it is used to tell a series of events in order in which they occurred. If your want the reader to catch readily the sequence of incidents.

c) Suspended interest form :

Sometimes, you can play upon the feelings of suspense in the reader in writing the story. Instead of starting with the climax of the story, you do not give it cut at the beginning, but make the reader find it later in the story.

Story length :

It is impossible to set any hard and fast rule on how long a particular news story should be. The ABC's of news writing – accuracy, brevity and clarity are our best rule.

Points in writing News Story :

- Always use standard size paper (8 ½ x 11 inches)
- White is the accepted colour for paper.
- All copies you produce must be typed. Double space your copy always.
- Always use good quality ribbon for your type writer to get a clean copy
- Leave a 3 or 4 inches margin at the top of your first page clear except for your name and address at the upper left hand corner. The rest of the blank space will be used for routine notations; required in processing your copy. Leave margins approximately one inch wide at the sides and bottom of the page.
- If you include a headline, type it at the top of the copy on your first page, but still leave the three inches top margin.
- If your story requires more than one page, write more or continued at the bottom of your first sheet and bottom of all following pages/ sheets except the final one. At the very top of the second page write your name but not your address, then on the same line with it write "Page 2".
- Still on the same line write two or three words that identify your story. Repeat this procedure for many pages as you have in your story.
- When your reach the end of your story, whether on the first page or several pages later, indicate the close of your copy by using the symbols (---, ###, ***) or writing End.
- Always produce a clean copy. Clean copy means that every letter and symbol can be readily and accurately read, but that pencilled corrections are permissible. Methods of making acceptable corrections are governed by conventional rules.
- Never erase. If you make a mistake, xxxx is out and then draw a line with your pencil through xxxx marks.
- Use standard proof reading symbols for showing corrections.
- It is best to deliver or mail copy flat, because that is the way it must be handled. But news papers will not object too much if you mail your copy folded in thirds from bottom to top. Folding your copy more that this will make too difficult to handle when unfolded.

Project Practical :

1. The students should see the local news paper, bring the cuttings of the news and paste it in the project book.
2. The student will also prepare a news story for local news paper.

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Exercise No. 9

Writing of Success Stories

Definition :

A success story is a kind of news story or feature story narrating the success of

a) An individual or a group.
b) An event or a programme.
c) An organization or
d) A project or an experiment etc.

Techniques of preparation of success stories :

It is essential that the story is marked by -

- Newness or recency of the event.
- Importance of the reader
- Proximity of the event to the reader
- Unusualness
- Human interest and
- Timeliness or seasonableness etc.

it should be composed of :

- Good ideas
- Appealing words, correct words so as to work on the psychology of the readers.

For success in \such story writing, one needs :

- Verbal facility
- Conviction about the ideas to be disseminated
- Ability to assimilate information.
- Judgment in choosing and using the information.
- Creativity in practical application of ideas.
- Open mindness
- Ability to innovate.
- Sales oriented attitude.
- A sense of personal responsibility for what is written.

The mass appeal and readability of the story improves with

- Fact based presentation.
- Use of short, correct, simple and catchy words.
- Sentences, using more nouns and verbs, few adverbs and adjectives, conjunctions etc.
- Short sentences (about 16 to 20 words per sentence).

Steps in writing Success Story :

1. Writing the success story :

The lead and the feature. The first paragraph of any news story is called **the show window of the story** in which one should put the best of oneself. It is called **lead of the story**. Based on the writer's judgement of the reader 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 **features**. This must be skillfully worded to work as a bait to catch the readers. The strongest or the most appealing aspect of the presentable matter may be put forth in the feature.

2. The body of the story :

A good news story usually consists of 200-300 words. A feature story may be little longer. The opening sentences of the story the feature may answer one of the six questions raised above while the remaining five questions can get answered in due course of story writing.

The story can run into a few or several paragraphs depending upon the matter available and the objective of the story writer. But it should follow the lead. Let the details in the story be presented in the order of their importance. This will facilitate the editor as well as the reader to decide where to stop.

3. The end of the story :

The story should end with some encouraging and appealing words / pharases / sentences so as to sustain their interest in your future messages.

Remembering that a success story is meant for -

a) Disseminating information.
b) Motivating people to adopt new ideas.
c) Encouraging people to continue with adopted practices.
d) Encouraging people's satisfactions with the adopted practices.

Writing success stories of farmers :

The purpose of wiring success stories of farmers is to develop interest and create favourable attitude towards innovations, to inspire and inform other farmers about the salient achievements of a farmer in a particular field. Success stores provide scope for recognizing the achievements of farmers and inspire others for action.

Nature of a success story :

A success story should be simple, interesting, easily understandable, illustrative and attractive. According to Dhillon and Hansry (1995), the basic elements of writing a success story of a farmer are : caption, lead, accomplishments, human interests, details of the farmer's personality, working patterns / conditions habits, education and training standard of living and conclusion.

Caption should express the theme of the content. It should be stated in action oriented language. It should attract the attention of the readers, arouse their curiosity and stimulate their imagination. It should have a motivational appeal.

Lead should create interest in the minds of the readers. It should describe the objectives that the success story hopes the readers to acquaint with. It should tell the contents, together with the scope.

The **accomplishments** of the farmer should be explained in the succeeding paragraphs to continue to hold the reader's interest throughout.

Add **human interest** in the success story by giving details of the events or ideas or situations that have a strong effect or appeal to human emotions. Also add, adequate details about the personality, working patterns, habits, education and training received and standard of living of farmers supported by suitable illustrations / photographs.

At the end, summarise the important points covered in the story and express the action required on the part of the readers in clear terms. The conclusion should be logical and convincing.

Guidelines for writing a success story :

- Decide the topic on which the success story is to be written. The topic should be new, innovative, timely and of immediate practical utility to other farmers.
- Select specific purpose of the success story. Decide clearly what the readers are required to do or understand better as a result of the success story.
- Select an appropriate innovative farmer who is practicing that vocation / occupation successfully.
- Interview the selected farmer on a fixed date and time. Collect background information and farmer's success of information / inspiration.
- Visit the farm and observe the farming operations / techniques in detail.
- Note down those particular points of farming / occupation, which are different from other farmers.
- Collect basic information about the farmer like bio-data, farm and family.
- Have the farmer photographed along with the crops, livestock etc. doing some important field operations. Get a set of action photo, select photo relevant to the write-up.
- Write-in simple and effective language, using familiar and concrete words. Keep sentences short, clear in meaning and simple in construction. Add motivational appeal.
- Report most important facts first, followed by less important ones. Develop details in succeeding paragraphs arranged in order of importance.
- Avoid personal opinion in the write-up.
- Avoid giving too much numerical data.
- Give complete and factual information about the farmers and the achievements.
- Give conclusion at the end, indicating action required on the part of the readers.

Project practical :

Write one Success Story on Agricultural aspect.

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Exercise No. 10

Study of Structure and Functioning of District Rural Development Agency (DRDA)

DRDA has traditionally been the principal organ at the district level to oversee the implementation of anti-poverty programmes of the Ministry of Rural Development. This agency was created originally to implement the Integrated Rural Development Programme (IRDP). Subsequently the DRDAs were entrusted with number of programmes of both state and central governments. From April 1999's separate DRDA Administration has been introduced to take care of the administrative costs. This aims at strengthening the DRDAs and makes them more professional in managing the anti-poverty programmes and be an effective link between the ministry and the district level.

Many Schemes of the Central and State Governments are introduced from time to time. Several schemes are available providing support to different components of Rural Development. Schemes are also periodically modified to reflect the experience over the years. The task of DRDA has been to identify the needs of the rural population and reach the appropriate schemes where they are needed. In implementing the schemes, the role of the DRDA has been Technical, Managerial and Financial. Thus DRDA is not only a body to disburse the funds for the schemes but also provide appropriate Managerial and Technical support.

Objective / purpose

The DRDA Admin. Section is the office in-charge of implementing the DRDA Admin. Scheme through which the Central share of fund is directly released to the District Rural Development Agency (DRDA). The DRDA is the principal organ at the district level to manage and oversee the implementation of different anti-poverty programmes of the Ministry of Rural Development. It is a supporting and facilitating organization which plays a very effective role as a catalyst in development process.

Mission / Vision

Statement The objective of the scheme is to strengthen and professionalise the DRDAs so that they can effectively enhance the quality of implementation. Brief history "DRDA Administration" Scheme was introduced from 1st April, 1999 under which the salary and administrative expenses of DRDAs are funded on a 75:25 basis between Centre and State Governments. However, from 2008-09 the funding pattern for N.E. States has been changed from 75 : 25 to 90 : 10. In the case of UTs, the Centre provides entire (100%) funds under the Scheme.

Role and functions of DRDA

1. To successful implementation of rural development programmes, DRDA is effective delivery agency. None of the anti-poverty programmes can have impact unless they are implemented with clarity of purpose and a commitment to the task. It is here that the DRDAs play a critical role.

2 The district Rural Development Agency is visualised as specialized and a professional agency capable of managing the anti-poverty programmes of the Ministry of Rural Development on the one hand and to effectively relate these to the overall effort of poverty eradication in the District. In other words, while the DRDA will continue to watch over and ensure effective utilization of the funds intended for anti-poverty programmes, it will need to develop a far greater understanding of the processes necessary for poverty alleviation/eradication. It will also need to develop the capacity to build synergies among different agencies involved for the most effective results.

3 DRDAs must themselves be more professional and should be able to interact effectively with various other agencies. They are expected to coordinate with the line department, the Panchayati Raj Institutions, the banks and other financial institutions, resources required for poverty reduction effort in the district.

4 The DRDAs will maintain their separate identity but will function under the chairmanship of the Chairman of Zill Parishad. They are expected to be a facilitating and supporting organization to Zill Parishad, providing necessary executive and technical support in respect of poverty reduction efforts.

5 The DRDAs are expected to oversee the implementation of different anti-poverty programmes of the Ministry of Rural Development in the district.

6 The DRDAs shall keep the Zilla Parishad, the State and Central Government duly informed of the progress of the implementation of the progremmes through periodic reports in the prescribed formats.

7 It shall be the duty of the DRDAs to oversee and ensure that the benefits specifically earmarked for certain target groups (SC/ST, women and disabled) reach them.

8 The DRDAs shall take necessary step to improve the awareness regarding rural development and poverty alleviation particularly among the rural poor.

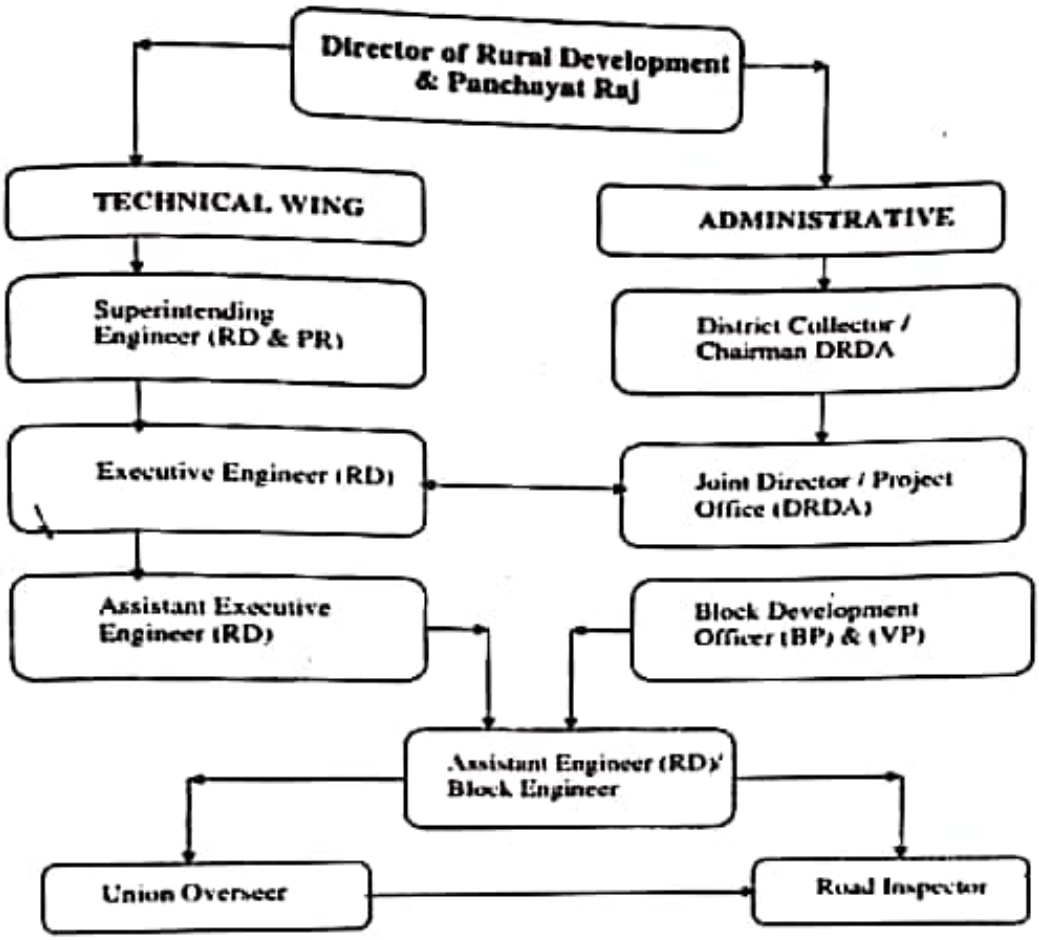
9 The DRDAs will strive to promote transparency in the implementation of different anti-poverty programmes.

10 Keeping in view, the substantial investment that are being made in poverty alleviation programmes, the DRDAs shall ensure financial discipline in respect of the funds received by them, whether from Central or State Governments. They shall also ensure that the accounts are properly maintained including in respect of the funds allocated to banks or implementing agencies in accordance with the guidelines of different programmes.

11 In addition the DRDAs shall coordinate and oversee the conduct of the BPL Census and such other surveys that are required from time to time.

12 The DRDAs shall also carry out / aid in carring out action research/ or evaluation studies that are initiated by the Central/State Governments.

ORGANIZATION STRUCTURE OF DRDA



Each district will have its own District Rural Development Agency. Ordinarily it would be a society registered under a Societies Registration Act. In respect of such states where DRDA does not have a separate identity a separate cell should be created in Zilla Parishad which maintains a separate identity and separate accounts, so that the accounts are capable of being audited separately. This Cell should be directly under the charge of CEO or alternatively on officer, who has the qualifications to be a Project Director. DRDA must include positions for Planning for poverty alleviation, Project formulation, Social organisation and Capacity building, Gender concerns, Engineering supervision and Quality control, Project monitoring, Accountancy and Audit functions as well as Evaluation and Impact studies. The State Government may modify the structure suitably, but without altering the basic design, to take care of the needs of individual districts keeping in view their size as well as specificity. However, this will also be subject to the overall ceiling of administrative costs admissible to the DRDAs in the State. By and large the staff appointed should be dedicated to DRDA-related works and should not be frequently transferred.

PROJECT DIRECTOR :

i) Each DRDA should be headed by a Project Director, who should be of the rank of an Additional District Magistrate. The Project Director should preferably be a senior scale officer of the All India Services or a senior officer of the State Service, eligible for appointment to the All India Services.

ii) In some States, such as Maharashtra, the CEO of the Zilla Parishad is the Chairman of the Zilla Parishad. Government of India have suggested to all the State government that the chairman, Zilla Parishad should be the chairman of the governing body of the DRDA. In the light of this, in such states, the CEO of the Zilla parishad could also be designated as the Project Director of the DRDA.

iii) Each DRDA should have the following wings :

a) Self-employment Wing
b) Women's Wing
c) Wage employment Wing
d) Engineering Wing
e) Accounts Wing
f) Monitoring and Evaluation Wing
g) General Administration Wing

Exercise No. 11

Study of Structure and Functioning of Department of Agriculture

The need to grow more food was felt during the 19th Century because of the increasing pressure of population. According to the recommendation of Famine Commission (1881), Agriculture Department was established in 1883 at National level. Work started with the aim of helping the rural community to achieve higher productivity in agriculture. Agriculture and Land Records Departments were functioning together till 1907. After getting encouraging results in an effort made during 1915-16 to stop soil loss, the Agriculture Director started soil conservation work from 1922.

Agriculture Department took up various land development activities with the enactment in 1942 and subsequent enforcement of Land Development Act in 1943. For the first time in 1943, the Government prepared a comprehensive Agriculture Policy considering the problems in agriculture and allied sectors. According to this policy, emphasis was given on use of water as irrigation for agricultural crops.

The post independence period from 1950 to 1965 is recognized as pre Green Revolution period. During this period several schemes were launched to boost growth of agriculture sector. Production of quality seeds through Taluka Seed Farms started during 1957. Emphasis was given on increase in irrigated area along with cultivated area during this period. A special campaign was launched in 1961-62 to encourage use of chemical fertilizers.

Development of hybrid varieties of different crops since 1965-66 laid down the foundation of Green Revolution. Five year plans following this period specially emphasized development of agriculture. Nala bunding work was taken up along with land development work by the department since 1974 which led to increase in well and ground water level. Introduction of intensive agriculture, comprising of large scale use of improved seed, fertilizers, pesticides and available water helped increase in agriculture production. Later on, considering the need for providing guidance to the farmers for proper and judicious use of these inputs, Training and Visit Scheme was launched in 1981-82. Valuable contribution of this scheme through effective implementation of programs like Crop Demonstrations, Field Visits, Corner meetings, Workshops, Fairs, Exhibitions etc. aimed at transfer of technology from Agriculture Universities to farmers fields was evident from the increased agricultural production.

Though we have become self sufficient in food grain production inspite of the tremendous increase in population, self sufficiency in agriculture is not the only aim of the state but assurance of more and more net income to the farmers through the efficient and sustainable use of available resources is more important. To achieve this,

commercial agriculture should be practiced. Different schemes are implemented to increase agricultural production, export promotion and to encourage the agro processing industry with a view to take advantage of liberalized economy and Global trade. Thus, agriculture department is firmly stepping towards economic progress along with self sufficiency through agriculture and to achieve important position in the global agriculture produce market. The innovative horticulture plantation scheme under employment guarantee scheme implemented by the state is a part of this policy.

Agriculture department considers farmer as the focal point and the whole department is organized in such a fashion that a single mechanism is working to facilitate the farmer for adoption of advanced technology and sustainable use of available resources. Every agriculture assistant working at village level has a jurisdiction of three to four villages with number of farmers limited to 800 to 900 which facilitates more interaction for easier transfer of technology.

Agriculture Assistant at village level undertakes soil conservation work, horticulture plantation and various extension schemes. He is supervised by Circle Agriculture Officer at circle level. Administrative control, laison with other departments, monitoring and training programs etc. are facilitated by Taluka Agriculture Officer at taluka level, Sub Divisional Agriculture Officer at sub division level, District Superintending Agriculture Officer at district level and Divisional Joint Director at division level. In addition, Agriculture Officer at Panchayat Samiti level, working under Agriculture Development Officer, Zilla Parishad at district level also implement various agro-inputs related schemes.

All the schemes implemented in the field are supervised technically and administratively by respective directorates of Soil Conservation, Horticulture, Extension and Training, Inputs and Quality Control, Statistics, Monitoring and Evaluation and Planning and Budget at state level in the Commissionerate of Agriculture. Also separate sections are there for the Establishment and Accounts related matters.

Single Window System of Extension in Maharashtra

Agriculture, Horticulture and Soil conservation and Watershed Development Department were re-organized and a single agency responsible for agricultural development at village level 'Single Window System' was implemented on 1st July, 1998, the birth anniversary of Late. Vasantrao Naik (Legendary figure in green revolution of Maharashtra). In the earlier system only 64% staff was available at grass root level and 36% at apex level. Now, due to single window system, 81% staff will be made available at grass root level and 19% at apex level.

Salient Features of Single Window System:

1. Formation of separate offices at Circle and Taluka level.
2. Integrated planning of agriculture, soil conservation and watershed management and watershed management and horticulture departments by single extension worker.
3. Maximum staff available at village level for transfer / dissemination of agricultural technology.
4. Increased participation of State Agricultural Universities in dissemination and training in agricultural technology.
5. To enhance commercial, business minded farming, separate counter / office at district level.
6. More stress on technology transfer for horticulture department.
7. Additional area and officers / workers for fruit / horticulture nurseries.
8. Soil testing laboratories in all districts.
9. Project investigation department in all division for implementing future plans / projects.
10. Establishment of precaution team at State level for quality control.
11. Computerization of the department.
12. Right / authority of input quality control upto taluka level.
13. To solve the problems of officer / worker staff regarding services, immediately staff welfare department constituted.
14. All the above aspects in reorganization achieved through earlier existing / sanctioned designation only.
15. Realistic, long term agricultural development plan for all districts.

Organizational Set up of Dept. of Agriculture in Maharashtra State

	Organizational Set up of Dept. of Agriculture in Maharashtra State ↓
State Level	Minister of Agri. & Marketing, Horticulture, Water conservation ↓
	State Minister of Agriculture, Horticulture, Water Conservation ↓
	Additional Chief Secretary (Agri. & Marketing) | Principal Secretary (Water Conservation)
	Commissioner (Agriculture)
	1. Director (Horticulture) 2. Director (Extension & Training) 3. Director (Input & Quality Control) | 4. Director (Soil conservation & Watershed Management) 5. Director (Agri. Processing & Planning) 6. Director (ATMA)
Divisional Level (8)	Divisional Joint Director of Agriculture (8) (DJDA) ↓ ↓
District Level (33)	District Superintendent of Agril Officers (DSAO) | Project Director, ATMA
	Sub-divisional Agriculture Officer (SDAO)
Taluka	Taluka Agriculture Officer (TAO)
Circle	Circle Agriculture Officers (CAO)
Village	Agriculture Officer (AO)
	Agriculture Assistant (AA)

Types of NGO :

NGO / GRO (Governmental-Related Organizations) types can be understood by their orientation and level of how they operate.

By orientation

- *Charitable orientation* often involves a top-down paternalistic effort with little participation by the "beneficiaries". It includes NGOs with activities directed toward meeting the needs of the poor people.
- *Service orientation* includes NGOs with activities such as the provision of health, family planning or education services in which the programme is designed by the NGO and people are expected to participate in its implementation and in receiving the service.
- *Participatory orientation* is characterized by self-help projects where local people are involved particularly in the implementation of a project by contributing cash, tools, land, materials, labour etc. In the classical community development project, participation begins with the need definition and continues into the planning and implementation stages.
- *Empowering orientation* aims to help poor people develop a clearer understanding of the social, political and economic factors affecting their lives, and to strengthen their awareness of their own potential power to control their lives. There is maximum involvement of the beneficiaries with NGOs acting as facilitators.

By level of operation

- *Community-based organizations* (CBOs) arise out of people's own initiatives. They can be responsible for raising the consciousness of the urban poor, helping them to understand their rights in accessing needed services, and providing such services.
- *City-wide organizations* include organizations such as chambers of commerce and industry, coalitions of business, ethnic or educational groups, and associations of community organizations.
- *State NGOs* include state-level organizations, associations and groups. Some state NGOs also work under the guidance of National and International NGOs.
- *National NGOs* include national organizations such as the YMCAs/YWCAs, professional associations and similar groups. Some have state and city branches and assist local NGOs.
- *International NGOs* range from secular agencies such as Ducere Foundation and Save the Children organizations, SOS Children's Villages, OXFAM, CARE, Ford Foundation, and Rockefeller Foundation to religiously motivated groups. They can be responsible for funding local NGOs, institutions and projects and implementing projects.

Apart from "NGO", there are alternative or overlapping terms in use, including: third-sector organization (TSO), non-profit organization (NPO), voluntary organization (VO), civil society organization (CSO), grassroots organization

(GO), social movement organization (SMO), private voluntary organization (PVO), self-help organization (SHO) and non-state actors (NSAs).

Activities

There are numerous classifications of NGOs. The typology the World Bank uses divides them into Operational and Advocacy.

Generally, NGOs act as implementers, catalysts, and partners. Firstly, NGOs act as implementers in that they mobilize resources in order to provide goods and services to people who are suffering due to a man-made disaster or a natural disaster. Secondly, NGOs act as catalysts in that they drive change. They have the ability to 'inspire, facilitate, or contribute to improved thinking and action to promote change'. Lastly, NGOs often act as partners alongside other organizations in order to tackle problems and address human needs more effectively.

1. Operational

Operational NGOs seek to "achieve small-scale change directly through projects". They mobilize financial resources, materials, and volunteers to create localized programs. They hold large-scale fundraising events and may apply to governments and organizations for grants or contracts to raise money for projects. Operational NGOs deal with a wide range of issues, but are most often associated with the delivery of services or environmental issues, emergency relief, and public welfare.

2. Campaigning

Campaigning NGOs seek to "achieve large-scale change promoted indirectly through influence of the political system". Campaigning NGOs need an efficient and effective group of professional members who are able to keep supporters informed, and motivated. They must plan and host demonstrations and events that will keep their cause in the media. They must maintain a large informed network of supporters who can be mobilized for events to garner media attention and influence policy changes.

3. Both operational and campaigning

It is not uncommon for NGOs to make use of both activities. Many times, operational NGOs will use campaigning techniques if they continually face the same issues in the field that could be remedied through policy changes. At the same time, Campaigning NGOs, like human rights organizations often have programs that assist the individual victims they are trying to help through their advocacy work.

Public relations : Non-governmental organizations need healthy relationships with the public to meet their goals.

Staffing : Some NGOs are highly professionalized and rely mainly on paid staff. Others are based around voluntary labour and are less formalized. Not all people working for non-governmental organizations are volunteers. Many NGOs are associated with the use of international staff working in 'developing' countries, but there are many NGOs in both North and South who rely on local employees or volunteers.

Exercise No. 13

PRA Techniques and Their Application in Village Development Planning

Meaning :

By the early 1980s, there was growing dissatisfaction among development experts with both the reductionism of formal surveys, and the biases of typical field visits. In 1983, Robert Chambers, a Fellow at the Institute of Development Studies (UK), used the term *Rapid Rural Appraisal* to describe techniques that could bring about a 'reversal of learning' Two years later, the first international conference to share experiences relating to RRA was held in Thailand. This was followed by a rapid growth in the development of methods that involved rural people in examining their own problems, setting their own goals, and monitoring their own achievements. By the mid 1990s, the term RRA had been replaced by a number of other terms including 'Participatory Rural Appraisal (PRA)' and 'Participatory Learning and Action' (PLA).

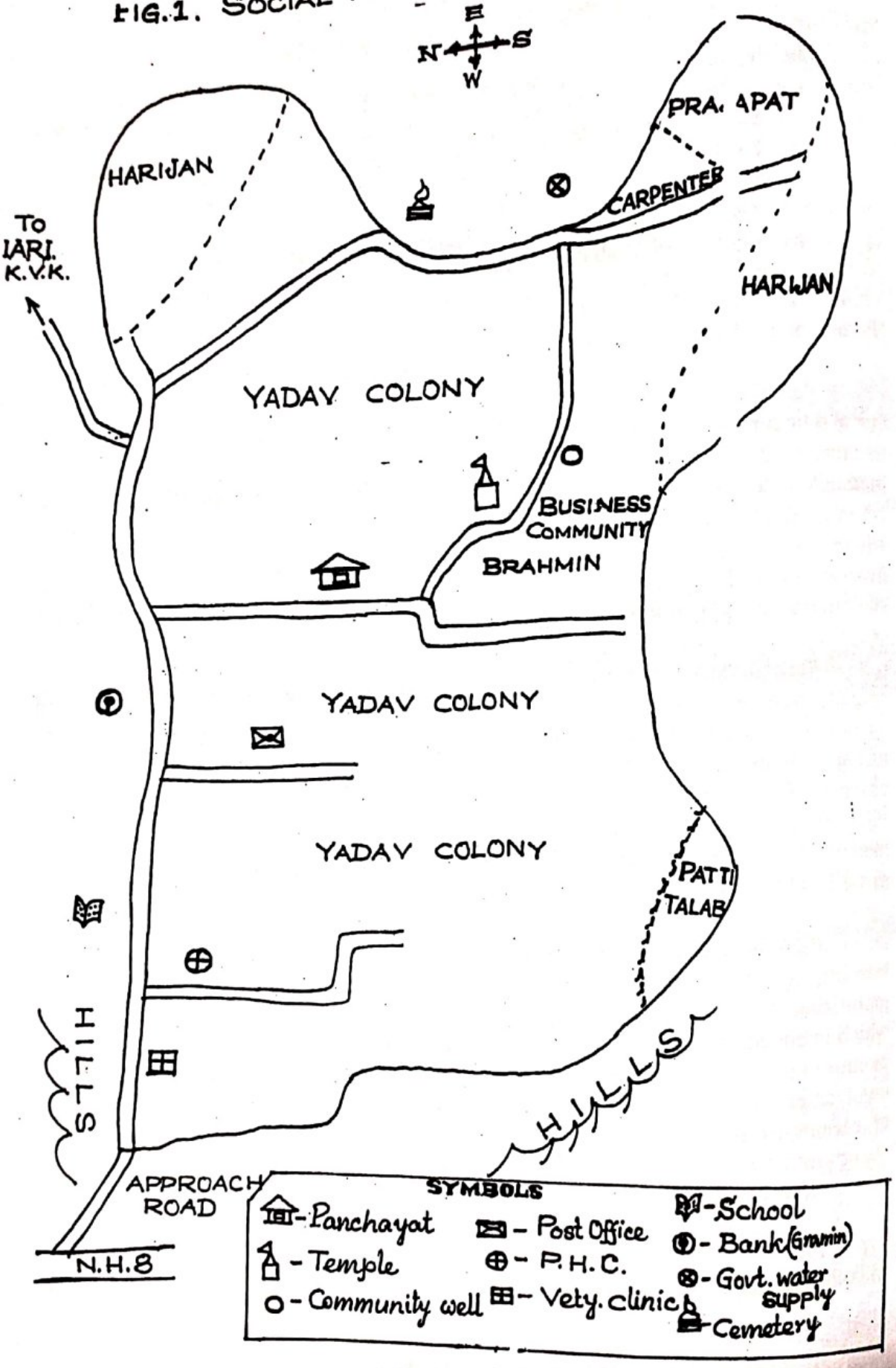
Participation through people's involvement is the basic approach in PRA There are a number of method and techniques available and used for Participatory Rural Appraisal (PRA) and Participatory Appraisal of Natural Resource (PANR). These methods offer a range of practices for learning about the relationship of local communities with natural resources. These methods consists of various techniques which makes local people creative, interactive and analytical. The methods help in the involvement of local communities because it is they who, do their own analysis through such methods, explain their findings and purpose of action on that basis.

Participatory processes may be initiated by means of sheer dialogue and conversation with the local communities. It is important on the part of an outside agency or person to build a congenial atmosphere, attitude and behaviour. In this kind of participation, ways and means of expressions and analysis would remain limited in absence of a proper participatory methods. This exercise provide an insight into such PRA method which empower local communities to do their own analysis. These methods also provide a variety of ways in which communities can participate in groups as well as in individuals.

PRA is a methodology for interaction with villagers understanding them and learning from them. It is a means of collecting different kinds of data, identifying and mobilizing intended groups and evaking their participation and also opening ways in which intended group can participate in decision making, project design, execution and monitoring of rural development programmes. PRA constitutes a process of involvement with rural people for indigenous knowledge building exercise, it is a way of learning from and with villagers to investigate, analyse and evaluate constraints and opportunities to focus attention on people, their livelihoods and their inter relationship with socio-economic and ecological factors.

PRA is sometime known as Participatory Rapid Appraisal where the emphasis is on both **'Participatory'** and **'rapid'**. The emphasis on rapid, however, is more in terms

FIG.1. SOCIAL MAP OF VILL. SHIKOHPUR



of data collection and less in terms of the process of development or even implementation of plan.

The PRA is a flexible, low cost, time saving set or approaches and methods used to enable the rural people to collect and analyse information in terms of past, present and future situation to understand about the rural people and the condition existing in rural areas which would provide a thorough and comprehensive idea regarding problems, potentials and solution to formulate realistic development programme by villagers themselves, but facilitated by PRA experts / practitioners. The thrust of this approach is based on the assumption that the villagers have the capabilities of solving their own problems. Their wisdom should be utilized along with scientific knowledge. This integration will trigger the process of sustainable development.

Definition of PRA :

Participatory Rural Appraisal (PRA) is a form of approaching people with a semi-structured range of tools that can be used to learn, relatively quickly, with the rural people about their situations, problems, resources and opportunities.

The participatory rural appraisal was pronounced by **Robert Chamber** as a novel method of ascertaining community, Group and individual problems of a village, assessing the available natural and physical resources.

Objectives :

1) For greater and better involvement of villagers by learning about their perceiption, experiences and capabilities.
2) To generate information and collection of data for immediate or future use.
3) For learning about the impact of earlier or on going policies and programmes and to frame new ones.
4) for validation or cross checking of data collected from other sources.
5) For training of different categories of persons involved in the development process, whether from the Government, NGO's, banks, donor agencies, researchers, extension agents, scientists etc.
6) For research, studies on use of PRA and to suggest improvement in its methodology.

Identification of Key Informants :

In a society or community, all members are not equally knowledgeable. Some may have more experience and knowledge than others. For identification of a key informant, it is important to meet different people and look for knowledgeable one. One should contact both men and women. Matured and experienced person, living in a community for many years may be a potential key informant.

However, this does mean that persons other than key informants do not have much role in participatory inquiry. Every member of a community is a part of participatory frame work. The work of key informant is to help in collecting key information, preparing checklists, clarifying issues and cross checking for errors and omissions.

TABLE 1. TIME-LINE ANALYSIS

NAME OF VILL. : SHIKOHPUR, GURGAON, HARYANA

	PERIOD/YEAR	PARTICULARS OF EVENTS
1.	1400 A.D.	- Four Yadav brothers first came from Rajasthan & established the village.
2.	-do-	- Village old well was constructed by the Muslims.
3.	1600 AD.	- Village temple was built.
4.	1800	- Wooden bullock-drawn carts were 1st used.
5.	1872	- Epidemic of small-pox.
6.	1900	- Bullock-drawn cart with rubber-wheel
7.	1913	- Swarm of locusts.
8.	1920	- 1st use of desi-plough for cultivation
9.	1952	- 1st graduate - Sotaj Yadav.
10.	1955	- Electricity 1st used by Chandermal Yadav.
11.	1956	- 1st use of Jeep for travelling.
12.	1959	- 1st use of bullock-drawn disc-plough.
13.	1962	- Establishment of school in the village.
14.	1964	- 1st use of radio by Jagmal Singh.
15.	1965	- Establishment of hospital in the village
16.	1974	- 1st use of tractor for farming.
17.	1979	- 1st use of T.V. in Panchayat Ghar.
18.	-do-	- Establishment of Vety. hospital
19.	1984	- 1st use of H.Y.Vs of wheat.
20.	1987	- 1st use of fertilizer in field.
21.	1988	- 1st use of sprinkler irrigation.
22.	1989	- 1st use of telephone in the village
23.	2001	- 1st SDO from the village.
24.	2002	- Broiler farming started.
25.	2003	- Floriculture nursery started.

PRA Techniques

Important participatory methods used in field situations for probing relationship of local communities with natural resources are described here. The illustrations which accompany the methods and applications relating to PRA & P ANR from the field. The major methods are as follows.

1. Semi-structured interviews
2. Time line
3. Participatory mapping
4. Venn or "Chapatti" diagram
5. Transect walk
6. Vector scoring
7. Wealth Ranking
8. Matrix scoring
9. Participatory seasonality analysis
10. Trend -analysis
11. Flow chart
12. Source diagram

These are explained briefly in the text and further high-lighted in the appendix with concrete examples from the field. These examples are self explanatory. But the readers may fill up with information collected from his own field work area.

1) Semi-structured interview :

Semi-structured interview is mainly based on open questions. In this method of participation there is a great deal of flexibility. The open questions lead to different kinds of responses based on which further questions are designed on the spot for probing of issues. A sequence of open questions help in conducting an in-depth probing of issues and their cause effect relationship.

Before the beginning of an interview, the interviewer must have a small checklist of issues on which questions can be asked. Once an interview starts, other relevant issues can be added to the checklists. This will help in enriching discussion of a theme by moving from one aspect to another. It is always better to have a team including a member from each discipline for conducting the interview. It helps in probing the issues from different angles. The interviewer should have capacity to judge the behaviour and attitude of community members. If he feels that members are not taking interact in answering the questions. interview should be postponed.

2) Time line :

Degradation of natural resources is an age old phenomenon, associated with the community development. It is important to know the historical profile of natural resources and their relationship with people. Time line is a major participatory method which can be used in probing of this relationship. The major issues in probing may include historical impact of resource degradation, community efforts to preserve natural resources, impact on livelihood changing habits, food pattern, quality of life etc.

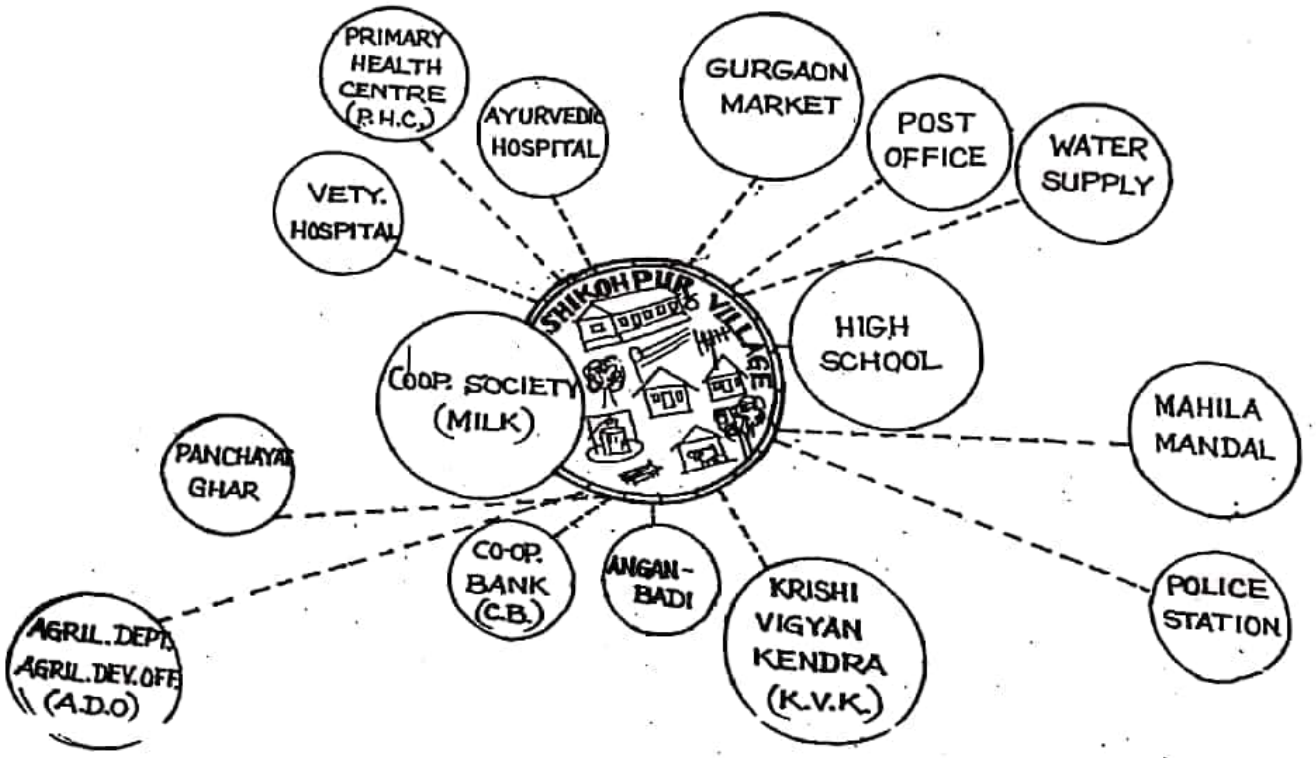


FIG. COMMUNITY- INSTITUTION LINKAGE (VENN-DIAGRAM)

In order to construct a time-line one should sit with elderly people in a community. These people will trace historical patterns of change in their locality and community. They may not be able to trace the exact time, date or year. But they will connect some major historical event whether political, economic or social.

Time line is the best participatory method to collect information pertaining to changes in forests, land use, community preferences, community problems, socio-economic aspects, bio-diversity and other developmental activities. Historical narration of events, their impact and changes can differ from one informant to other depending on their perceptions. It is useful to keep track of the broad time period to which they refer to rather than looking for specific data. From a time line important changes or events may be selected for further probing.

3) Participatory mapping :

Participatory mapping is a blue print of the area where local communities are living and from where they are earning their lively hood. It includes details and locations of house-holds, livestock, farm size, water bodies, field, forest, trees, road, literacy, disease, etc. depending on the theme under discussion. There may be different maps for different theme such as resource map, social map, literacy map, etc.

In the process of participatory mapping, few (two or three) persons take lead m drawing the map. Other members; of the community help them in cross checking the locations and details which are forgotten by leading persons. Different maps may be drawn by different group of the people. In the resource map details like forests, lands, fields, cultivated and barren, irrigated and unirrigated area, orchard, etc. may be depicted. Social mapping may include households and other buildings in the area etc are also depicted.

Other areas which can be shown in participatory mapping are the following.

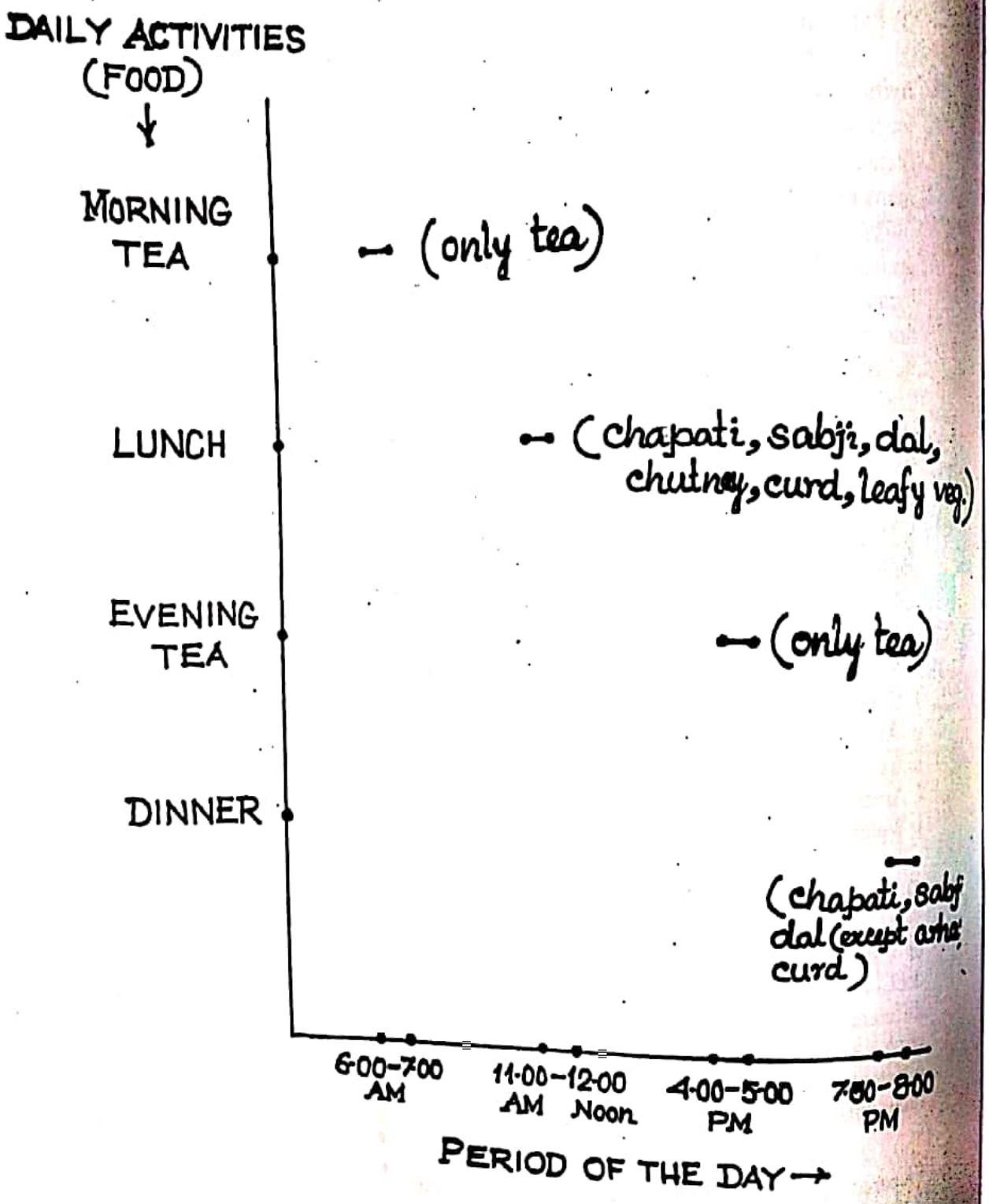
a. For showing community habitat, forest land and their area,
b. Households, trees, water bodies, soil, farms, hand pumps, schools and other things in the locality,
c. Land use in a locality,
d. Boundaries of locality and forests,
e. Spatial areas of people-forest conflict cooperation,
f. Grazing areas,
g. Areas for social forestry,
h. Common property resources (CPR) and wastelands,
i. Areas for collection of fuelwood and
j. Water bodies.

4) Venn or "Chappati Diagram" :

Venn or Chappati Diagram is a visual method to represent the role of individuals or institution in the process of decision making. It also measures degree to which decision is influenced by the groups or individuals. Circles of different size representing different individuals institutions/groups show their importance in decision making. Such circles can be drawn on ground/paper, or alternatively, circular shaped papers of different size can be used for symbolizing such relationships. The distance of circles (diagram) indicate the relationship of individuals/ institutions/ groups which such

NUTRITIONAL ASSESSMENT

COMMON FOOD-HABITS FOLLOWED IN THE VILLAGE SHIKOHPUR



circles represent Overlapping of circles indicate their over lapping in decision making. Illustration of it venn diagram as drawn by a group from Paraikulam village community in Tamil Nadu is given in the Appendix IV.

For rural people in a village community Venn diagrams would reflect the kind of communication between them and the rest of the village community and their governmental organizations and NGOs. Different aspects of their life can be taken up to see their interaction and their role in decision making involving village planning in running of projects, ini distribution of land, credit, water and other assets and in construction of roads, school building, dams, etc.

5) Transcet walk :

In the method of transcet walk villagers and project implementing agency members walk through a selected area. During walk, they discuss about different aspect of land-use and agro-ecological zones in the village. For example, a degraded forest area, identified through a map can be jointly surveyed by community members and outside agencies for discussion in terms of causes, nature and action for regenerating such forest area. The walk may be summarized as per land use describing soil conditions, trees, crops, animals, birds, kind of soil erosion, water sources, fodder species, problems and opportunities. Such joint walks involve detailed under- standing of issues related to selected areas from local people. A sequence of such joint walks can be organized depending on locations in question. The areas for joint walk is generally selected in consultation with local community, either on the basis of group discussion, semi-structured interviews or on the basis of participatory mapping. For more details on joint walk recording refer Appendix V.

6) Vector scoring :

Vector scoring is a visual method and involves scoring .of criteria items for assessing their relative importance so as to prioritise problems/benefits/ dangers/ damages/ opportunities, etc. This method can be used by individuals as well as groups. At the beginning, the agency's team intervening with local community; generally take help of semi-structured interviews with groups of local people who generate different criteria item which they think are important for consideration by groups. Such criteria can be either a set of problems, a set of benefits, a set of preferences, a set of activities/ items etc. Such a list of criteria can be placed before the group members who are concerned with such scoring. They can make further deletion or addition to the list of criteria according to their views. Hence, the method of vector-scoring involves considerable flexibility in generating criteria and also flexibility in terms of scoring.

Once there is consensus on the list of criteria, it can be transferred to the ground, in a column. or a row, either on small pieces of paper or with the help of different indigenous symbols. It is important to have agreed symbols for representing criteria especially where group members are illiterate or semi-literate. This would empower them to understand each criterion on their own and think about it before scoring.

Scoring of the criteria may be done individually first and then in groups. It is essential to train the group members about rate of scoring. The individual scoring is just a thought provoking exercise. This also helps in warming up for group scoring. Individual scoring can be followed by group scoring. The individuals may be requested

DIRECT MATRIX RANKING ON ENTERPRISES

Sl. No.	Criteria \ Enterprises	Field crops	Nursery raising	Floriculture	Dairy	Vegetable	Poultry
1.	Production/yield	●●●●●●	●	●●●	●● ●●	●●● ●●	●
2.	Inputs availability	●●● ●●	●●●	●●● ●●	●●● ●●●	●●● ●●	●● ●●
3.	Investment (Less)	●	●●●	●●●	●● ●●	●● ●●	●
4.	Market accessibility	●●● ●●	●●	●●●	●●● ●●	●●● ●●	●●● ●●
5.	Labour use (Less)	●●● ●●●	●●●	●● ●●	●● ●●	●● ●●	●●● ●●
6.	Income/profit	●●	●	●●●	●● ●●	●●● ●●	●● ●●
7.	Risk involved (Less)	●●	●●●	●● ●●	●●● ●●	●●●	●
8.	Price fluctuation (Less)	●●● ●●●	●●●	●● ●●	●●● ●●	●● ●●	●
9.	Demand for market	●●● ●●	●●●	●●● ●●	●●● ●●●	●●● ●●●	●
	Total score	39	22	35	44	41	23
	Rank	III	VI	IV	I	II	V

to perform group-scoring of criteria, either by falling into one group or in different small groups as per their preference. Much depends on how the community wishes to fall into groups. In any case, it is important to encourage group interactions and discussions before group scoring takes place.

Scoring by seeds, stones, pebbles or other indigenous material can indicate the relative importance of a criteria. Scoring of criteria can be free or fixed. In fixed scoring, a fixed number of scores say ten scores are used. So scoring is fixed in terms of the number of scores used and also shows relative importance of criteria. While free scoring has no limit on scores used for each criterion. Greater scoring indicates relatively greater significance of a criterion under consideration. Style of scoring much depends on choice and convenience of the local people.

Vector scoring strengthens base for prioritization and anlysis of problems in a local community.

(7) Wealth Ranking :

This technique is useful to find out the economic profile of the village and also to identify the status of each family as perceived by the villagers. Participatory wealth ranking is a very sensitive task and the whole process and environment needs to the controlled carefully. The big landholders do not want to disclose their land holding and other assets in public. However, this exercise helps in identifying the target groups for specific programmers of rich, poor, landless families etc. This also enables the community members to accept more assistance being given to the needy families. During the process of wealth ranking the villagers should be encouraged to speakout their own criteria for identification of wealth i.e. land holding, availability of irrigation facility, cattle holding number of persons employed by the family, material possessions in the form of motor cycle, T.V. etc. The wealth ranking information collected from one group may be triangulated with the other groups and the list of families belonging to different categories may be finalised.

(8) Matrix scoring :

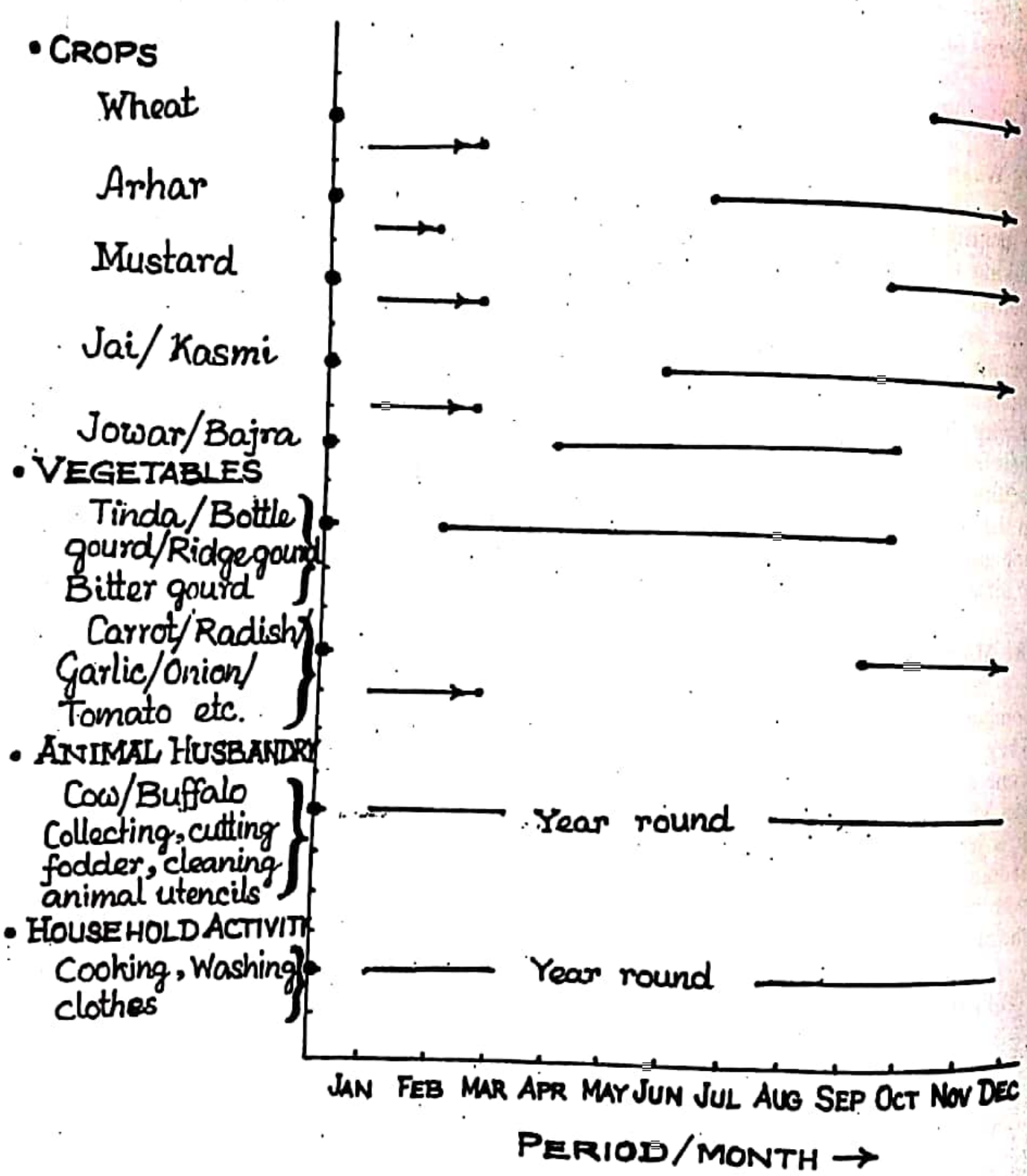
Matrix scoring is concerned with scoring of a range of criteria against a range of comparable items. For scoring items can be selected by local community members. They can be a set of trees, a set of animals, a set of crops or different varieties of the same crop, a set of cooking devices, a set of trees in a home garden, a set of vegetables, etc. Matrix scoring is a method of relative scoring of items in relation to a set of criteria. It is important that the criteria to be scored should be worthy of comparison and it should lead to some meaningful analysis. The scoring takes place in a grid like set-up, with items on one side and criteria on the other. This can be treated as an extension of the method of vector scoring.

(9) Participatory seasonality analysis :

Seasons tend to influence lives and livelihoods of local communities. Hence, it is important to appreciate and learn about seasonality dimensions in lives of local people. The seasons bring changes in climate and rainfall, agro-ecological conditions, natural and extent of job availability, soil conditions, days of labour, wages, food

SEASONALITY ANALYSIS

Seasonal calender of different enterprise & activities of the village Shikohpur



patterns, disease vectors, disease incidence, income expenditure, consumption patterns etc.

In this method, the local people are asked to describe and compare their activities, livelihood patterns, food, debt, disease patterns, rainfall, etc. as per seasons and construct such seasonal calendars by using indigenous material. At first such seasonal changes are verbally described by them which can then be followed by visual illustrations by local people using indigenous materials.

Any seasonal analysis generally starts with a semi-structured interview on season and a discussion of their impact on community lives. It is generally convenient to start by a discussion of the prevailing season and then the other seasons tend to get included in the analysis. Once the purpose and nature of probing are made clear to local groups, they are asked either to explain verbally each season and its impact or illustrate seasonality, visually on the ground.

10) Trend analysis :

Happenings of the history are described by the people in the method of trend analysis. Trend in ecological surroundings can also be demonstrated through this method. For instance the method can be used to show past trend in the number and density of trees, selected species of trees, water resources, bio-diversity etc. This method helps in providing a back ground to any issue through trend analysis. The community members can be requested to show such trend visually, preferably on the ground with indigenous materials such as sticks/seeds, stones, leaves etc. and then asked to explain such trend.

11) Flow chart :

In this method, the local people describe cause effect relationship, whether verbally or visually and explain linkages amongst different factors. Each problem would have its determinants as perceived by local communities and a flow chart can link problems with their perceived caused and help in arriving at possible solutions to such problems. Flow chart can give trends like years of crop failure, number of trees in a particular area, incidences and occurrences of pests and diseases etc.

12) Source diagram :

This method helps in identifying sources of any activity, item, issue, etc. and also ranks such sources according to their importance. Like sources of fodder, fuel, food, fibre, etc. can be identified in village area and may be ranked.

i) Social mapping

1 Gather all the people in a particular place.
2 Draw a map in the participation of cammunity people.
3 Let the people be active in mapping.
4 Locate each resource of the community settlement, water top, school, hospital, forest, farm, post office, river, well temple,

ii) **Mobility Mapping**

iii) **Preference Ranking**

1 Water (.....%) drinking / irrigation.
2 Health (.....%)
3 Education (.....%)
4 Sanitation (.....%)
5 Income generation (.....%)

iv) **Seasonal calender**

Vaishakh	Jyestha	Ashadh	Shravan	Bhadrapad	Ashwin
Plantation		Plantation	Harvesting Maize		Harvesting Millet
Kartik	Margshis	Paush	Magh	Falgun	Chaitra
Harvesting Paddy					

v) **Time line**

Date	Events Activities	Impacts		Remarks
		Positive	Negative	

vi) Well being Ranking

Caste /ethnic Group	Economic status	Social status	Real need

vii) Geographical Mapping

viii) Circle Diagram

ix) Farmers' indigenous practices / Knowledge :

Based on their experience the farmers have developed their own indigenous practices and follow their beliefs. It is very essential to get to know clearly their knowledge and beliefs about the practices they follow. Many of the practice and ITK of the farmers are based on apapropriate and scientific grounds, are low cost and location specific. These provide to agricultural scientist some new ideas and thought provoking practices for participatory technological development appropriate for the specific area. For gaining insight into the ITK of the farmers, the experienced farmers must be encouraged to describe the reasons for their present practices and change of certain practices over a period of time. They should be made to feel that their indigenous practices beliefs and wisdom are appreciated by the scientific community and their practices can be combined with the scientific information for better agricultural produce.

The ITK of the farmers will give the team some topics for research to be utilized for the benefit of the farmers.

Steps in conducing PRA :

1) **Introduction about PRA** – meet the village community and explain the purpose of PRA. No promises to be made.

2) **Village tour** – with the key local leaders to identify the soil type, water resources, crops grown, dairy etc. Start the tour early in the morning in summer.

3) **Introduction of Team -**

Group Exercise : Activities to be exercised in PRA :

i) Drawing a sketch map of the village, locating the facilities.
ii) Mapping of resources
iii) Plotting of seasonality
iv) Historic profile of the village
v) Time allocation for different activities
vi) Village transect
vii) Problem cause analysis
viii) Priority ranking
ix) village integrated resource management plan
x) Summary – at the end of each exercise a villager should be asked to summarise what the diagram conveys, the important implications etc.

Materials required :

i) Chunna
ii) Chalk pieces of different colours
iii) A-4 paper
iv) pencil,
v) felt pens
vi) Scissors,
vii) Cello tape etc.
viii) Sticks
ix) Stones,
x) Channa (Gram)
xi) Rajmaha etc. for quantifying

Essential points to be considered while conducting PRA :

1. Do not concentrate with one person in dialogue, bring in all the participants.
2. Do not repeat the same question, repeat it if not understood.
3. Do not rush, let the villagers flow in their expression.
4. Do not limit yourself to the fact and figures, listen to their opinions.
5. Do not limit yourself in planned structure, discuss the things suited to situation.
6. Do not ask closed questions. Ask open ended questions.
7. listen, do not lecture the villagers.

Duties of PRA Expert or Practitioner :

1. Do not secretly write in the note book.
2. Put your paper on place where everybody could see.
3. Write things only after confirming it with the villagers.
4. Start with question how to draw village map, let the villagers draw it.
5. Give responsibility to the villagers.
6. Set such a climate that a person drawing map listens to the comments made on map.
7. Let all the people see the map drawing.
8. Use sticks to draw lines, better if it is on ground with sand.
9. Use easily available material like stones, grains, chunna etc. as visuals for quantifying the things on map.

When to conduct PRA ?

It should be done at a time convenient to the local leaders. Sowing, harvesting, heavy monsoon, peak summer as well as festival times should be avoided. It should be started early in the morning around 8.00 a.m. and must be finished before sun set time as it involves visual drawings on the ground / paper.

Where to conduct PRA ?

Chaupal, School ground or backward of a house, anganwadi, etc. may be used for doing the PRA work.

Participation of villagers :

Participation of as many people as possible along with senior people and the important local leaders is desirable. If women do not take part in the public meetings, a separate PRA can be organized for them. Youth generally take lead part. School children's involvement after school hours on a holiday makes the exercise very fruitful.

Project Practical :

The students will visit the Village for organizing PRA Techniques to identify the agricultural problems.

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Exercise No. 14

Visit to Community Radio Station (CRS)

In India, All India Radio (AIR), the public service broadcaster has been playing a very useful role for decades in providing relevant information to the people in the remotest parts of the country. Still today, radio is the primary source of agricultural information for the farming community of rural India. However, this has to be supplemented by a strong community radio movement to ensure greater involvement of local communities in the development process.

Community radio is a radio service offering a third model of radio broadcasting in addition to commercial and public broadcasting. Community stations serve geographic communities and communities of interest. They broadcast content that is popular and relevant to a local, specific audience but is often overlooked by commercial or mass-media broadcasters. Community radio stations are operated, owned, and influenced by the communities they serve. They are generally nonprofit and provide a mechanism for enabling individuals, groups, and communities to tell their own stories, to share experiences and, in a media-rich world, to become creators and contributors of media.

In many parts of the world, community radio acts as a vehicle for the community and voluntary sector, civil society, agencies, NGOs and citizens to work in partnership to further community development aims, in addition to broadcasting. There is legally defined community radio (as a distinct broadcasting sector) in many countries, such as France, Argentina, South Africa, Australia and Ireland. Much of the legislation has included phrases such as "social benefit", "social objectives" and "social gain" as part of the definition. Community radio has developed differently in different countries, and the term has somewhat different meanings.

The first community-based radio station licensed to an NGO (as distinct from campus-based radio) was launched on 15 October 2008, when Sangham Radio, licensed to Deccan Development Society, in Pastapur village, Medak district, Andhra Pradesh state.

Meaning and Definition :

Community radio is **defined** as **"radio that is owned by the community and airs programmes designed and produced by it specifically for its own developmental needs"**. It is a significant departure from the primary centralized radio broadcasting paradigm that India has been following for decades. It can be supported by the state, individuals or corporate or even international bodies. A radio station is recognized as 'community radio' when the station is owned by a non-profit group or by a co-operative whose members are the listeners themselves.

A community radio station is one that is operated in the community, for the community, about the community and by the community. It can be managed and controlled by one group or combination of groups of people such as women, children, farmers, fisher folk, ethnic groups, or senior citizens. There is high level of people's participation, both in management and program production. Individual community members and local institutions are the principal sources of support. Community radio is a broadcasting organization established to provide communication support for the social, economic and cultural development of a community within a geographical location and owned and operated by the community on a non-profit basis.

Community radio is characterized by access, public participation in production and decision-making and by a non-profit listener-friendly economics. The management of the station is in the hands of those who use and listen to it. The workings of such stations are not easy, but the structure allows the audience or users to participate in the whole operation. Community radio by itself may not be an end of only an independent means for achieving social development but it must be coordinated with ground level initiatives and has to be perceived as an additional arm for social communication and capacity-building prorammes. It should be seen as a part of a broader struggle for access to communication media, a struggle not only for freedom of communication but particularly for the right to communicate, which has gained support in the past 25 years.

Community radio essentially means a wireless broadcasting installation that is owned and operated by the community that forms its audience. It commonly implies a low power and inexpensive set up that confine its signal to the community of people clustered nearly.

Vision, Philosophy, and Status

Modern community radio stations serve their listeners by offering a variety of content that is not necessarily provided by the larger commercial radio stations. Community radio outlets may carry news and information programming geared toward the local area (particularly immigrant or minority groups who are poorly served by major media outlets). Specialized musical shows are also often a feature of many community radio stations. Community and pirate stations (in areas where they are tolerated) can be valuable assets for a region. Community radio stations typically avoid content found on commercial outlets. A meme used by members of the movement is that community radio should be 10 percent radio and 90 percent community. This means that community radio stations should focus on getting the community talking and not solely on radio (which is a technological process); the social concerns of community radio are stressed over radio per se. There is also a distinction drawn in contrast to mainstream stations, which are viewed as pandering to commercial concerns or the personalities of presenters.

Achievements Through its regular operations the community radio shall be able to:

- Provide a development forum for the community;
- Encourage participatory community development;

- Promote active involvement of underprivileged groups such as women and young people;
- Intensify the sharing of information within the community;
- Encourage innovation in community development;
- Increase the free flow of accurate and balanced information to, and within, the community;
- Provide a forum for local cultural expression; and improve people's access to information in local languages

India:

In India the campaign to legitimise community radio began in the mid-1990s, soon after the Supreme Court of India ruled in its judgment of February 1995 that "airwaves are public property". The judgment inspired several free speech advocates, academics and community members across the country to being a concerted campaign to legitimize community radio in India.

In 1996, a Bangalore based media advocacy group called VOICES organized a gathering of community radio stakeholders. A declaration calling for the establishment of a third tier of broadcasting, i.e., community broadcasting, was signed. A suggestion that AIR's local stations should allocate regular airtime for community broadcasting was put forward. Requests were also made for grant of licences to NGOs and other non-profit making groups for running community radio stations. Subsequently, UNESCO made available a portable production and transmission "briefcase radio station" kit to VOICES to do experimental broadcasts of programmes for a hands-on learning experience towards the objective of setting up an independently-run community radio station.

According to the Ministry of Information & Broadcasting, Government of India, (25 April 2013), 148 CRSs were in operation and 227 applications under process.

World Development Foundation (WDF) and Media Lab Asia (MLA) have joined hand through a Memorandum of Association to harness the potential of community radio for enriching the life of poor people. Under this agreement, it is proposed to set up five Agricultural Universities, viz. Narendra Deo University of Agriculture and Technology, Faizabad, Tamil Nadu Agricultural University, Coimbatore, Birsa Agricultural University, Ranchi, Kalyani University Kolkata and Indira Gandhi Agricultural University, Krishak Nagar, Raipur. The content on various themes of agriculture and farming shall be developed for broadcast with the help of subject experts. The project shall be funded by Media Lab Asia and implemented by WDF.

Recently Krishi Vigyan Kendras (KVKs) also have been given licences for operating CRS for the effective functioning at gross root level in the Maharashtra.

Prospects of Community Radio :

The growth in Indian agriculture is sharply declining. To keep Indian agriculture moving the urgent need is to pass on agricultural information to the farming

community as quickly as possible. Radio can play vital role in this direction. Despite rapid technological changes in telecommunications in the last few decades, radio broadcasting remains the cheapest mode of information dissemination, equally catering to the needs of the rich and poor, rural urban masses and reaching the remotest parts of the country. Needless to say, it plays a vital role in country's social-economic and cultural development. Among the various modes of radio broadcasting, community radio especially has an important role to play. Due to its focus on local concerns and aspirations and the interactive nature of its programming, community radio can be a powerful medium for education and development. The experience of a number of developing countries in using community radio for such purposes has clearly demonstrated its tremendous potential for strengthening grassroots democracy. The power of community radio lies in its participatory nature as both its content and technology are people oriented. It is an affordable means of communication, where people themselves raise issues and identify their own priorities. This has demonstrated a huge potential to fulfill the information and entertainment needs of the community. Community radio some times is the only choice to respond to the information and cultural needs of illiterate, marginalised, remote and underserved communities. It is closest to oral culture and found to have huge potential for communication.

Radio is an enormously supportive medium, particularly in context of poor women in their struggle for autonomous markets and legitimate space for discussing issues that main stream media may not be interested. The centrality of community participation of content is a cross cutting non-negotiable in all the initiatives.

Community radio can become right platform to surface women's rights in socio-political situations. It can be effective and successful means of maintaining community cohesion during disasters and in times of emergency. Listeners feel greater sense of identification with this programme and clearly say that this is distinct from AIR. This community radio can also give traditional folk media a new lease of life by involving traditional folk forms and creating new sustainable mixed forms of expression and communication.

Expectations of CRS :

The government expects a number of benefits to flow from the successful operation of CRS across the country. In other words it can play variety of roles. They are :

- Enhancing participation of people in the development process.
- Capacity building, especially in rural areas, through education.
- Providing opportunities to people to upgrade their skills and enhancing their creative talents.
- Preserving and promoting traditional wisdom, knowledge and skills, thereby helping to promote and project the local languages, arts, crafts, culture and traditions.

- Bringing within easy reach of the rural population, topical information in areas of agriculture, social welfare, education, health and environment.

- Creating rural networks for cottage and village industries.

- Strengthening Panchayat Raj Institutions.

Key players or Actors in Community Radio :

The key players in a Community Radio Project that involves broadcasting are :

Community members : This is the audience and the people who are central to the project.

Providers of technology : These people provide the equipment that the project ill need; train members of the community on how to use and maintain the equipment.

Government : These are two levels in the government that need to be kept in focus - (1) The department which will grant permission for the programme either through AIR channels or through ownership of radio transmitters and (2) the local administrative authorities.

Producers and Staff : These are the people who know the craft of programme production and will help the community to generate ideas and create programmes. They will also help with inputs from outside sources that will add to the general information pool essential to sustain radio programmes.

Resource mobilizers : These are the people who provide the finance to support the initiative. These could be the state, corporate house or NGO but the ultimate sustainability must come from the community.

These groups are the stakeholders. They are called stakeholders because each stakeholder has some interest in running the programme and a 'stake' in the project. They are all partners in the project and share the responsibility of making it successful. Unless the participant, the listener and the broadcaster are all stakeholders in a community radio programme, it is difficult to sustain the programme.

There is a growing acceptance of the community radio in the country. However, this service needs continuous back-up from the institutions till it reaches sustainability. Therefore role of stakeholders in running the service at initial stage is most essential. This initiative will definitely pave the way for the participatory development process and thereby harnessing the potentials of agricultural technologies for livelihood security at grassroots level. As extension strives to address the local priorities through greater interaction among the researchers, extensionists and farmers / farm women, community radio can be an effective and pragmatic means to attain community development goals.

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Syllabus

Course :	EXTN 122		Credit:	3 (2+1)	Semester-II
Course title:	Fundamentals of Agricultural Extension Education				

Theory

- **Education**: Meaning, definition and types – Formal, informal and non formal education
- **Extension Education**-Meaning, definition, need, scope and process; history, objectives, philosophy, principles and approaches.
- **Extension Programme Planning**- Meaning, process, principles and steps in programme development.
- **Extension systems in India**:
  - Extension efforts in pre-independence era : Sriniketan, Marthandam, Firka Development Scheme, Gurgaon Experiment
  - Post-independence era : Etawah Pilot Project, Nilokheri Experiment
  - Present extension System : Department of Agriculture : Structure, Function
- **Various extension/ agriculture development programmes launched by ICAR/ Government of India :** Introduction, Objectives and Salient Achievements
  - Intensive Agricultural District Programme (IADP)
  - Intensive Agricultural Area Programme (IAAP)
  - High Yielding Varieties Programme (HYVP)
  - Institution-Village Linkage Programme (IVLP)
  - Operational Research Project (ORP)
  - National Agricultural Technology Project (NATP)
  - National Agricultural Innovation Project (NAIP)
  - Rashtriya Krishi Vikas Yojana (RKVY).
- **New trends in agricultural extension:** Meaning , Objectives, Salient features
  - Privatization in extension,
  - ICT in Extension education - Cyber extension/ e-extension,
  - Market-led extension,
  - Farmer-led extension,
- **Rural Development:** Concept, meaning, definition, objectives and genesis
- **Various rural development programmes launched by Government of India** : Introduction, Objectives and salient features
  - Swarna jayanti Gram Swarojgar Yojana (SGSY)
  - Indira AwasYojana (IAY)
  - Mahatma Gandhi National Rural Employment Guarantee Act
  - Prime Ministers' Rozgar Yojana (PMRY)
  - District Rural Development Agency (DRDA)

- Integrated Watershed Development Programme (IWDP)
- Providing Urban Amenities in Rural Area (PURA)
- Rashtriya Mahila Kosh – (National Credit Fund for Women)
- Mahila Arthik Vikas Mahamandal (MAVIM)

- **Community Development.** : Meaning, definition, concept, principles and philosophy.
- **Democratic Decentralization (Panchayati Raj)** : Meaning, Constitution and functions
- **Extension administration and management:** Meaning and concept, principles, functions and differences
- **Evaluation in Extension** : Meaning, definition, types of evaluation, monitoring and evaluation
- ***Transfer of technology programmes:*** *Lab to Land programme (LLP),National Demonstration (ND), Front Line Demonstration (FLD),KrishiVigyanKendras (KVK), Technology Assessment and Refinement Programme (TARP) of ICAR.*
- **Capacity building of extension personnel and farmers** : Meaning, Training and Education, Types of training, Training institutes in India, Concept of Human Resource Development
- **Extension Teaching Methods and Audio-Visual Aids** : Meaning, definition, importance, classification, media mix strategies; Factors affecting selection and use of methods and aids
- **Communication:** Meaning and definition; elements, selected models and barriers to communication.
- **Agriculture journalism** : Meaning, definitions, news writing
- **Diffusion and adoption of innovation:** Concept and meaning, Attributes of innovation, Innovation decision process, adopter categories.

Practical

1. Study of university extension system.
2. Organizing group discussion- exercise;
3. Handling and use of digital camera
4. Handling and use of LCD projector
5. Handling and use of Public Address System,
6. Preparation of extension literature – leaflet, folder,
7. Preparation of effective power point presentations
8. Writing of news story
9. Writing success story
10. Study of structure and functioning of DRDA
11. Study of structure and functioning of Department of Agriculture
12. Visit to NGO and learning from their experience in rural development;

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13. Visit to village to understand PRA techniques and their application in village development planning;
14. Visit to community radio / television studio for understanding the process of programme production;
15. Writing for print / electronic media,
16. Developing script for radio / television.

Teaching Schedule

a) Theory

Lecture	Topic	Weightage (%)
1	**Education:** Meaning, definition and types – Formal, informal and non formal education	2
2, 3, 4	**Extension Education-** Meaning, definition, need, scope and process; history, objectives, philosophy, principles and approaches.	10
5, 6	**Extension Programme Planning-** Meaning, process, principles and steps in programme development	5
7, 8	**Extension systems in India:** ▪ Extension efforts in pre-independence era : Sriniketan, Marthandam, Firka Development Scheme, Gurgaon Experiment ▪ Post-independence era : Etawah Pilot Project, Nilokheri Experiment ▪ Present extension System : Department of Agriculture : Structure, Function	5
9, 10	**Various extension/ agriculture development programmes launched by ICAR/ Government of India :** Introduction, Objectives and Salient Achievements ▪ Intensive Agricultural District Programme (IADP) ▪ Intensive Agricultural Area Programme (IAAP) ▪ High Yielding Varieties Programme (HYVP) ▪ Institution-Village Linkage Programme (IVLP) ▪ Operational Research Project (ORP) ▪ National Agricultural Technology Project (NATP) ▪ National Agricultural Innovation Project (NAIP) ▪ Rashtriya Krishi Vikas Yojana (RKVY).	10
11, 12	**New trends in agricultural extension:** Meaning , Objectives, Salient features ▪ Privatization in extension, ▪ ICT in Extension education - Cyber extension/ e-extension, ▪ Market-led extension, ▪ Farmer-led extension,	5

Lecture	Topic	Weightage (%)
13	**Rural Development:** Concept, meaning, definition, objectives and genesis	5
14, 15, 16	**Various rural development programmes launched by Government of India** : Introduction, Objectives and salient features ▪ Swarnajayanti Gram Swarojgar Yojana (SGSY) ▪ Indira Awas Yojana (IAY) ▪ Mahatma Gandhi National Rural Employment Guarantee Act ▪ Prime Ministers' Rozgar Yojana (PMRY) ▪ District Rural Development Agency (DRDA) ▪ Integrated Watershed Development Programme (IWDP) ▪ Providing Urban Amenities in Rural Area (PURA) ▪ Rashtriya Mahila Kosh – (National Credit Fund for Women) ▪ Mahila Arthik Vikas Mahamandal (MAVIM)	10
17	**Community Development. :** Meaning, definition, concept, principles and philosophy	3
18	**Democratic Decentralization (Panchayati Raj) :** Meaning, Constitution and functions	2
19.	**Extension administration and management:** Meaning and concept, principles, functions and differences	3
20	**Evaluation in Extension** : Meaning, definition, types of evaluation, monitoring and evaluation	2
21, 22	**Transfer of technology programmes :** Lab to Land programme (LLP), National Demonstration (ND), Front Line Demonstration (FLD),Krishi Vigyan Kendras (KVK), Technology Assessment and Refinement Programme (TARP) of ICAR	5
23, 24	**Capacity building of extension personnel and farmers** : Meaning, Training and Education, Types of training, Training institutes in India, Concept of Human Resource Development	5
25, 26, 27	**Extension Teaching Methods and Audio-Visual Aids** : Meaning, definition, importance, classification, media mix strategies; Factors affecting selection and use of methods and aids	10
28, 29	**Communication: Meaning and definition;** elements, selected models and barriers to communication	10
30	**Agriculture journalism** : Meaning, definitions, news writing	3
31, 32	**Diffusion and adoption of innovation:** Concept and meaning, Attributes of innovation, Innovation decision process, adopter categories.	5
	Total	**100**

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b) Practical

Experiment	Topic
1	Study of university extension system
2	Organizing group discussion- exercise
3	Handling and use of digital camera
4	Handling and use of LCD projector
5	Handling and use of Public Address System
6	Preparation of extension literature – leaflet, folder
7	Preparation of effective power point presentations
8	Writing of news story
9	Writing success story
10	Study of structure and functioning of DRDA
11	Study of structure and functioning of Department of Agriculture
12	Visit to NGO and learning from their experience in rural development
13	Visit to village to understand PRA techniques and their application in village development planning
14	Visit to community radio / television studio for understanding the process of programme production
15	Writing for print / electronic media
16	Developing script for radio / television

Suggested Readings

1) Dahama, O.P. and Bhatnagar, O.P. 1980. Education and Communication for Development. Oxford &IBH Publishing Co. Pvt. Ltd., New Delhi.
2) Dudhani, C.M.; Hirevenkatgoudar, L.V., Manjunath, L.; Hanchinal, S.N. and Patil, S.L. (2004). Extension Teaching Methods and Communication Technology, UAS, Dharwad.
3) Kamat, M.G. (1985). Writing for Farm Families. Allied Publishers, New Delhi.
4) Kelsey, L.D. and Hearne, G.C. (1963). Cooperative Extension Work, Comstar Publishing Associate, New York.
5) Mehta, D.S.(1981). Mass Communication and Journalism in India. Vikas Publication, New Delhi.
6) Ray, G.L. (1991). Extension Communication and Management. Noya Prakash, Calcutta.
7) Reddy, A.A 2005 Extension Education. Sri Lakshmi Press, Bapatla.
8) Rogers, E.M. 2003. Diffusion of Innovations. Free Press, New Delhi.
9) Samanta, R.K. (1990). Development Communication for Agriculture. BR Publishing Corporation, Delhi.
10) Sandhu, A.S. (1993).Textbbok on Agricultural Communication : Process and Methods. Oxford and IBH Publishing Pvt.Ltd., New Delhi.
11) Singh, A.K., Lakhan Singh, R. and Roy Burman (2006). Dimensions of Agricultural Extension. Aman Publishing House, Meerut