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# UNIT 38 DOCUMENTARY AND FEATURE PROGRAMMES

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## 38.0 OBJECTIVES

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A careful study of this unit will help you to

- plan a Documentary for TV, or for radio, and produce it on a step-by-step basis;
- distinguish between a Documentary and a Feature in aim and content; and
- gain some practice in looking for visual material to go with the words of your scripts.

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## 38.1 COMPONENTS

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We touched very briefly on the distinction between the Feature and the Documentary in Unit 33 when we are having a 'run-down' of radio programmes. It goes without saying that the two types have the same aims in television as they have in radio. But the means sought for achieving those aims are in some ways different. In radio when we look for ways and means, our question is, 'What is there to say about this topic, and who can say it and how?' In television, however, the question is, 'What is there to *show* about this topic, and who can show it and how?' Not that we don't say things as well on TV. But we can say something only when we see something on the screen.

Let us now set out the *general* answer to our question, taking a look at the *resources* that television can depend on. You can easily guess them, but it may be a good idea to list them out in one place, just in case we forget to think of any one of them.

### 38.1.1 Pictures

There can be only two kinds of resources, visuals and sounds. Among these there are of course the scenes the cameras *shoot* in the studio or out of doors. The rest are mainly *pictures*. If you can bring a picture in front of a TV camera, or take a camera to a picture, you can use it for your programme. Still photographs, slides, filmstrips, overhead transparencies, pictures from books, cartoons and so on can be 'shot on videotapes' for use. But make sure that the recording is done on professional equipment. The home VCRs we can find in the market right now will give us 'broadcast quality' pictures. The videotape which takes your pictures should be at

outlines, summaries, and *captions*, with *letterings* on them. All pictures, 'graphics', are called *captions* in the studio. Some use the term *photocaptions*. When there are series of pictures in which things move, appear and vanish, they are termed 'animated captions'. *Animation* (making things look as if they had life) was an extremely complicated and long-drawn-out process earlier on, but now there are computers which can be programmed to get several kinds of animation done reasonably quickly.

When you make graphics, or any other *captions*, remember they should be 'framed' in a window of 9" × 12" size. If your paper is square or a rectangle or any other size, you may have to leave a portion of your picture out of light, or an area of the television screen blank. But if you are going to show a map or a big picture one portion at a time, the size of the picture can be different.

### 38.1.2 Things

Things for TV range from mountains to molecules, so long as we remember why we bring them in. A mountain will have to be modelled if you need to show it all at the same time. And a molecule usually has got to be modelled in a magnified scale. But the point is that such aspects of things can be shown on TV as cannot be seen in everyday life.

### 38.1.3 People

People are irresistibly fascinated with themselves. So viewers love to see people like themselves, in the situations which your documentary or Feature is attempting to portray. In television, as well as in radio, there is a slot in the documentary and in Feature, called 'vox pop'—the people's voice. The presenter goes round with an audio taperecorder (if it is radio) or a video taperecorder and records the views, reactions, or activities of the people involved in the situations, or the people who are concerned with the issues being discussed. Whatever the reactions are, they bring authenticity to the programme. Authenticity brings credibility. But if the views are *all* perceived to be the same as those of the presenter, they may *harm* credibility, for all their authenticity. Some at least of the reactions should be different from those of the presenter.

### 38.1.4 Drama

Drama involves make-believe,—people pretending to be other people. The Documentary in the strict sense of the word will not admit it, since it cannot claim to be factual. This is why a hybrid programme, called the Feature Documentary or Documentary Feature has to be invented. (Another variety is the Semi Documentary). History comes alive when actual events are reconstructed by dramatization. All that happens in the programme may have actually happened but the people who were in the story may be all dead, leaving the programme maker no choice but to dramatize, and find a new label for his product.

Drama is a very powerful art which the Feature producer can turn to for assistance. Drama helps viewers in comprehension as well as in arriving at conviction. The film *Gandhi*, for instance, makes Gandhi convincing to the generations who arrived too late to see him. And all that the film does is to dramatize.

Dramatization and personification were two of the features tested in J.M. Tranaman's research to identify factors leading to comprehension. Only at the highest intellectual levels were they found superfluous. At all the other low levels, except those of high professionals and theoreticians, etc. they were found to be helpful to comprehension.

### 38.1.5 Film

Film has a far-longer history than television in this country. Therefore anyone who is planning a Documentary on recent history will find his 'documentary' materials, the actual events as they happened, and authentic reactions of the people who were 'there' at the time, in films. Apart from this, until television technology develops further, film has an advantage over television in several activities. Fast and slow motion

move at variable speeds. Films can photograph more details than TV, because films take actual chemical photographs, so that a magnifying glass will show us the details in the picture. A TV picture on the other hand will be 'full of holes' if it is magnified, for it is a kind of 'line drawing', not painting. The technology will soon overcome these disadvantages but until it does so, we have to depend on films to give us what 'video' cannot give. But films take time to develop and process. Therefore, we cannot depend on them for anything 'topical', anything for immediate recording and use.

To feed a film into a videotape picture sequence, your producer's studio will have to be equipped with a 'telecine' ('telyciny' as it is pronounced) machine. You will have to find that out before deciding to use a stretch of film in your Documentary or Feature.

### 38.1.6 Sound

Real life does not go on against any musical background that we can hear. But then, real life is not staged for other people to view either. Since television Documentaries and Features are made for viewers to view, and the programme maker expects them to put viewers in a certain intended frame of mind, he may have to find suitable music to go with the beginnings and endings of his programmes as well as to fill intervals and other appropriate places in the programmes.

Apart from music, there are several other effects to be brought about with various sounds. As we said in one of the units on radio, very often, the actual sound of something may sound very unlike itself when it is taperecorded. Therefore an artificial synthesis of a sound may often be nearer to the fact than the actual sound itself. So the Feature maker will have to use 'spot effects' as well as 'library effects' with careful attention to detail. Anything that looks real but sounds unreal may distract the viewer's attention from the point you are trying to make.

#### Check Your Progress 1

1) What are 'graphics'?

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2) What does 'vox pop' bring your television programme?

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3) What is the problem that led to the invention of the Feature Documentary and the Semi-documentary?

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## 38.2 MAKING A DOCUMENTARY

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Documentary and Feature programmes make up a large area of radio and TV programme production, and perhaps the most creative area. The sheer number and variety of the programmes make this a difficult area to study. So let us start with the

The first thing we should bear in mind is that the viewer (or listener, if it is radio) should be left in no doubt about what he is being offered. If it is a Documentary, it has to be all *fact* and nothing made up. Suppose we are making a programme on the 'Bhopal Gas Disaster: its consequences'. We can make nothing but Documentaries for quite some time on this subject. And people are so agitated about it that anything other than demonstrable facts, if presented, will lead to an upsurge of earthquake proportions. Perhaps in 2020, you may be able to suggest a Feature Documentary or a Semi-Documentary, on it; earlier than that, you can present nothing but facts.

So let us plan something less controversial, something which is the opposite of Bhopal Gas Tragedy, which threatened to turn a city into a mass grave. Let us plan a programme on something that will turn a desert into a rice bowl. There is an organization called ICRISAT (International Crop Research Institute for Semi-Arid Tropic), which is trying to do exactly this. And it is in India—its main campus is. And occasionally its labour troubles come in the news. ! Why not find out what it is all about?

Working titles: 'Greening the Desert'

In this way or in some other way, an idea for a programme is born. Then you start expanding the idea, and planning to make a programme. You may get a pamphlet about ICRISAT and read it. Then you may go on a visit to the place and talk to some PRO or someone whose business it is to make friends for his Institute among the people. 'Is there anything your institute has done that the people can use?' You ask him. He says 'Yes' there is something. Our scientists have found a technique which will double your farmer's profits. You get interested, and examine his claim. You think this is something worth telling the people. And you decide to make a programme.

Then you go to the scientists of the institute and talk to them. You find them very doubtful about laymen. They are frightened you will put something terrible about them on television—something inaccurate and unscientific. Now your first task is to win their confidence. You tell them you are making a *Documentary*,—so everything you say will be fact-based, and you will say nothing without checking with them. When you are sure of their cooperation, you plan your programme, and write your notes, which may be something like this.

**Aim:** To give the viewer an idea of the 'silent revolution' that agricultural scientists have started on a small scale, and to persuade the viewer to join in and let it spread round the countryside.

**Duration:** 20-30 minutes.

**Information & Content:** Yearly figures of productivity, new and old, labour saved, economic returns, technology involved, etc. social change resulting.

**Key Questions:** What has happened as a result of soil erosion, deforestation, etc.? Can the trend towards dry land be reversed? Can the rural population be educated in the new ways? Will they take training to use the implements? And so on. Then, can they be convinced of the efficacy of the new ways?

**Pictures:** How long will it take to gather all the 'shots', on location. (What about the stages of the crops? Is it all experimental or are there actual farming areas in the hands of local farmers? How much guidance do they get?)

**Interview sources:** Scientists, farmers actually working the technology, village headmen, working women, others if any.

**Reference sources:** Icrisat publications, Icrisat library. 'Actualities'. Icrisat starting work, experimental farms, trial farms, 'real' farms, if any, at various stages, various processors, water management, seed planting, intercropping, sequential cropping, harvesting, immediately after harvest ....

After planning comes *Research*, which in this case will be mainly visits to the library, sorting out of *slides*, pictures, determining the availability of samples of plants, seeds, soil and so on.

After research you determine the structure. The main question here is, 'Are we getting a Narrator to 'link up' the parts and give the voice-over commentary, or are we letting the pictures and sounds, interviews, statements, etc. tell the story and put

For this particular programme a Narrator seems to be necessary. *But* will the Narrator *link up* or *'interrupt'* the 'flow'? It is often very easy for a Narrator to take the programme over, but this is going to convert the programme into a lecture. Is there any harm in that? Most often there is a great deal of harm. Not, perhaps in this particular case.

Now you are ready to *collect* the material, and compile it all into the programme you have planned to make. At this stage, you have to get the *script* written, that is, the way you *compile* your material into the programme that it will be.

Finally comes the actual production.

**Check Your Progress 2**

1) What are the main stages in making a Documentary Feature Programme?

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2) What are the things you consider when planning such a programme?

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3) When do you write a script for your Documentary or Feature?

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**38.3 THE FEATURE**

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We said we would have to wait for 2020 before we can make a feature about the Bhopal Gas Tragedy, while we can make a Documentary about it right away, as has been done. This is because the Bhopal Gas Tragedy is now an *issue*, while in 2020, it will hopefully be an *event*, about which people may wish to think, to avoid such disasters falling in their own times. A Documentary maker has to distinguish clearly between fact and fiction. Or else, he will have to take the consequences. Someone might sue him, if his organization or sponsor allows the programme to go through at all. But a Feature programme maker can freely mix fact and fiction, Actuality, poetry, drama, music, fantasy, everything can be blended to take the viewer through an imaginative experience of an event, or a 'supposed' event. As we said in an earlier unit, the programme maker's effort is 'to move, to inform, to entertain, or to inspire' the viewer. The feature can be either just interviews, or dramatisation, 'vox pop', or discussion, or a combination of all these. It's content may be all fact or all imaginary, or both. The programme maker is not obliged to make the nature of his material clear to the viewer or listener.

The feature is intended to tell the viewer something—it has a message. But instead of telling the viewer what we wish to say in a straightforward talk, we convey it to him with 'the dramatic force of a play'. If it is a straightforward play, however, it would create a 'dramatic illusion' but that is not what the Feature programme maker wishes to create. He wishes his message to have the 'authenticity of a talk', as if someone is telling him something, but as forcefully as drama would. This is the idea behind the attempt to make a feature.

Some of the likely subjects for features are, for instance, Holi Celebration, the evolution of English (with dramatic recall from the spirit world of various poets and

writers of various ages, speaking in their own English), the development of Hindi Kalidasa, Indian Medicine. The television series, 'Bharat ek Khoj', is a series of features which attempt to make history come alive.

The Feature and the Documentary are planned in the same way, and go through nearly the same stages. But while the Documentary may do without a script, the Feature *depends* on the script. The Documentary is based entirely on the facts collected. But the feature is centred round its strong story line. In which the unfolding of a chain of events is brought about with the skill of a dramatist. All the facts may be *known*, but still, a feeling of suspense is created by the way they are handled.

For the Feature Programme it is better if the same person is both scriptwriter and producer. Such a producer can visualize the final programme even as he is starting his work, in the library. The programme takes shape from his *immersion* in the subject. He does not seem to put it together. It seems to suggest itself to him.

Features may often have two titles, a main title, and an explanatory sub-title, for instance,

'Imhutek': A search for the healing god.  
The Himalayas through the ages; a personal homage.

**The Ending.** The most useful ending for a Documentary is a brief 'run through' of the points made, which the Narrator can give. This is specially advisable when the content of the programme is complicated, or crowded.

*Or*, some of the people who made the 'key statements' could be brought back on the screen to repeat them.

*Or*, the message of the programme could be identified in a single statement, and repeated. Example. 'Retributive justice, or compassionate relief,—punishment of the offender, or relief to the sufferer, this is the dilemma of Bhopal.'

There are several programmes which end, gazing into the future, asking questions into the crystal ball.

In some programmes, the voices and the scenes at the beginning come back again at the end, as though to help us recall the whole programme. Some programmes end without any ending, they let the viewer end them in his thoughts.

**The Beginning.** Now what shall we begin our programme on ICRISAT technology with? And what title shall we finally give it? 'The greening of the desert was a working title. If you do some lateral thinking and try 'generate alternatives' to it,—and you are an Indian student of English, some lines from our English professors' favourite poem might come to your mind. The professors go on prescribing lines for study from Thomas Gray's 'Elegy Written in a Country Churchyard.' And it has these lines:

Th' applause of list'ning senates to command,  
The threats of pain and ruin to despise,  
To scatter plenty o'er a smiling land,  
And read their hist'ry in a nation's eyes  
Their lot forbade! ...

'To scatter plenty over a smiling land'? Why not? Thanks to the ICRISAT scientists, our dryland farmers' lot may not forbid them any longer to scatter plenty over a smiling land and make the nations grateful eyes tell their story!

That settles the title. Now what about the beginning? The 'nation' salutes the country every morning, from the studios of All India Radio, with the words of praise, 'sujalaam, suphalaam...' Why not tell the farmers to work and make those words of praise come true? In the next two sections, you will read three parts of a programme on the ICRISAT technology. It was planned more or less as outlined in this and the last sections. The first part of the programme is 'in the spirit' of a feature. It is more imaginative than factual, the aim being 'motivation'. Agricultural implements are imagined to be 'weapons' of revolution. And agricultural operations are likened to the operations of a revolutionary struggle. But this is a short section.

When we come to the second part of the programme, we come down to earth, both literally and metaphorically. The language becomes practical and businesslike. Things

are made as clear as possible. A few technical words are used, but these are explained. The rest is more or less everyday English. You will not realize how much hard work it takes to make things look simple, until you try to do it.

What you are going to read is the initial script of the programme, after some editing from the scientists' point of view. It was written by a script writer with some training. The script went through several modifications during various stages of production.

The programme was telecast in the afternoon in the Doordarshan slot for Higher Education, in which a number of Documentary programmes are telecast. Next to the 'Demonstration-Lecture' or the 'Illustrated Talk', we can say, the favourite form among educational broadcasters appear to be the Documentary. This is understandable. Documentaries present facts, and facts are the building blocks of education.

Present facts and draw your conclusions from them. There is no better way to convince. The programme you are going to read will demonstrate this.

If Documentaries convince, features persuade. You may be convinced about something, but still you may not act on your conviction. Other considerations may influence your action. But persuasion leads to action. Persuasion influences your emotions and your will.

That distinction between Documentaries and Features gives you a basic criterion for examining (analysing) Documentaries and Features.

Features also are telecast very frequently in educational transmission. In history and biography they are the best ways of reconstructing events,—of putting flesh and blood on the skeletons of facts, figures and dates.

### Check Your Progress 3

1) What is the distinction between the purpose, the focus, of a Documentary and that of a Feature?

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2) What is the special characteristic of the message of a Feature?

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3) Suggest two suitable ways of ending a Documentary or a Feature.

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4) Why do educational broadcasters favour Documentaries?

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5) What is the difference between the ways in which Documentaries and Features influence the mind?

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When you read the script, try to find visuals for the slots where you find only numbers given in the video column in the left hand margin of the page.

## 38.4 A DOCUMENTARY: 'GREENING THE DESERT'

### 38.4.1 Introduction

To scatter plenty over a smiling land.

- 1) Logo etc.,  
Song: Sujalaam suphalaam malayaja Shitalaam, Shasya shyamalaam maataram ...
- 2) Lands of fertility and plenty  
That is the song broadcast over the radio all over India every morning, a song in praise of the motherland. And who would not wish their motherland like this? And perhaps the land does look like this in those regions where the green revolution has come in the recent past.
- 3) Bare semi-arid and arid lands  
But the same song echoes over many other lands that look like this. To those farmers who live and toil on these lands, that song seems to have little to say about their homelands or farmlands. It seems rather to call them to some far-off dreamland. These farmers, too, had such glorious dreams about their own farmlands. But will their dream ever come true? Will their lands ever be so green? That seems very doubtful if things go on as they are, more lands going dry. If this trend is not reversed, people will have to live and die in poverty and want. Can we ever push back the on-coming dry dust?
- 5) Dry regions in India  
In India alone, there are over a 100 million hectares of land totally dependent on rainfall for crop production. When will the green revolution come to these lands?
- 6)  
But revolutions don't come. Revolutions are brought about. The green revolution will come when we work for it and bring it about. It will come to these lands when we young men and women march out on them armed from head to foot and sworn to work until we win.
- 7)  
We have to arm our heads with science and technology. And our hands will have to be armed with skills and implements which are exactly right for the farms we work on. We have to learn the technology, drill ourselves in the skills, and train ourselves to use these skills with patience, care, and precision.
- 8)  
And when we have done the learning, we should not crowd into the *stuffy offices* of the cities, but spread out into the *fresh air of the open countryside*. But, is it practical to think of growing good crops and making a real profit out of dryland farming? Who will dare hope that an ordinary dryland farmer can ever eke out more than a bare living? Well, there are some scientists who believe that drylands can be farmed profitably. They claim that it is practical, and they are willing to show any serious student how it is practised. In fact, the practices they have developed have turned a stretch of farmland that looked like *this* into a field that look like *this*.
- 9)  
If that looks like the dream in the song come true, it is just as well. After all, it is the scientist's business to make the poet's dreams come true, and to begin with, they have made such a dream come true on a small piece of dryland.
- 10) traditional meagre growth
- 11) new tech. farm
- 12) ICRISAT PLOT then
- 13) ICRISAT plot now
- 14) (MUSIC)

### Check Your Progress 4

- 1) What kind of 'arms' have you visualized for the young 'men and women' in video slot No. 6?



2) What is the visual for slot No. 7?

3) Should the Song 'Suphalaam, sujalaam...' be rendered in English? How would you render the starting lines?

### 38.4.2 The Script

15) ICRISAT BUILDINGS  
CAMPUS

Over the next 20 minutes or so, we shall show you how scientists have achieved a breakthrough in dryland crop productions at the International Crops Research Institute for the Semi-Arid Tropics, known as ICRISAT, located in Patancheru near Hyderabad, Andhra Pradesh. They have achieved a *breakthrough* in dryland crop production. You can note some important features of the technology they used to improve the management of deep black soils, called *Vertisols*.\*

16) black soil

17) CAP, 'Vertisols'

1) *Soil erosion*: In the drylands of India, rainfall is erratic and unevenly spread between seasons and across regions. Some areas remain too dry for successful planting, while others are flooded and previous top soil is washed away. The traditional system of farming land loses large quantities of soil by erosion. That is to say, wearing away or washing off of surface soil occurs extensively. Farmers may lose 6 or more tonnes of soil from each hectare of land. Improved technology can cut down this loss of soil by erosion to a mere one tonne per hectare.

18)

19)

20)

2) *Better Rainfall Use*: In the usual or traditional ways of dryland farming in this region, rainfall is used only to the extent of 30 per cent. In the improved technology, it has been shown that rain water can be used with 67 per cent efficiency.

21)

22)

23)

3) *Crop Production*: At the ICRISAT Centre, crops have been produced at the rate of four tonnes per hectare for several years. The rainy season crop of sorghum or maize brings in 3,000 kilograms of grain. Then the intercrop of pigeonpea or the *sequential* crop of chickpea

24)

25)

- 26) brings in another 1,000 kilograms for each hectare.
- 27) Added to this is the *forage produced*. Total production may thus go upto *five tonnes* or more.
- 28)
- 29) 4) For every hundred rupees spent on farming with the improved technology, the farmer will get back Rs. 250. This gain has been obtained not only at ICRISAT Centre's experimental farms, but also by the farmers who tried out the new technology.
- 30) The new technology is thus *ecologically sound*, it increases productivity, and it is economically viable. Let us study the components of the new technology.
- 31) USE GRAPHICS *Steps of the technology:*
- Land has to be prepared soon after harvest.
  - The seedbed has to be prepared early, and seeds sown *dry*, before the rainy season,
  - Seed and fertilizer have to be placed close together, at the right depth in the soil.
  - Two crops can be grown per year, either planting them together (*intercropping*), or one following closely on the other (*sequential cropping*).
  - An efficient set of *agronomic* practices needs to be applied to ensure good crop management.
  - Plants have to be protected against diseases and insects.
  - A 'seedbed and furrow' system has to be used.
- 32) USE GRAPHICS *Land preparation*
- Deep Vertisol land is difficult to work when it is wet. It is also too hard to plow when dry. But immediately after the harvest of the first dry season crop, it will not be so hard. Land can be prepared at this time, before it gets too hard.
- 33) Prepare the land immediately after the first dry season crop. The soil may be cloddy—and not suitable as a seedbed. But most weed and stubble can be removed from the beds and furrows. After this preparation, some rain may fall before the arrival of the rainy season. With such rain, another cultivation needs to be carried out. When the clods shatter, the soil becomes *friable*.
- 34)
- 35) USE GRAPHICS *Runoff collection*
- Even in dryland areas, there are times during the rainy season when it rains too heavily. There is often more water than the crops can use or the land can hold. This water can be drained and collected in *storage ponds*. Deep Vertisol crops may not need this water. Still, if crops growing after the rainy season are given a little water from this pond, yields may be quite high, in sorghum, chickpea, wheat, or even vegetables.
- 36) SLIDES OF WATERSHED PONDS
- 37) USE GRAPHICS *Dry sowing (seeding)*
- Once the rains come, the Vertisols are so sticky and slippery that we can neither sow seeds nor put in any chemical fertilizers. In many years, rains are frequent so that sowing has to be put off for several weeks. This may lead to several problems. Seedlings of plants such as sorghum should be given time to establish during the first few weeks of the rainy season. If this is not done *shoot files* will destroy the young crop.
- 38)

**Note :** *Intercrop:* Two crops are planted at the same time. Every odd number in a row may be one variety of plant, and every even number, another variety. Or it can be that every third plant is the other variety.

*Sequential cropping:* Planting the second crop immediately after harvesting the first.

Therefore, in areas where the onset of rainfall is dependable, going by previous records, seeds should be sown in the dry soil ahead of the rainy season and fertilizer should be applied before the first rain falls. At ICRISAT Center, this is done when the probability of rainfall rises to 70%. This is the probability of rain at ICRISAT Center in the 24th week of the year. Sowing of seeds has to be so timed that they do not germinate (sprout) too soon, because there may be small pre-season showers to get the seeds germinating, but not enough rain thereafter to help them grow.

39) 70% rainfall probability week  
24 of the year at ICRISAT 5 to  
8 cm deep

40)

The seeds also need to be planted rather deep, so they do not germinate before the real rains start. Placement of seeds 5 to 8 cm deep in the soil has been found useful for growing sorghum, pigeonpea, or maize.

As soon as the heavy rains begin, seeds start germinating and the growing season commences. Then these early-sown crops will be ready for harvest early enough. And after the harvest, there will be enough moisture left in the land for a second crop before the next rainy season.

41) GRAPHICS

*The broadbed-and-furrow system*

1) Even after land smoothing, all the excess water may not drain off when heavy rains fall. It is only when the soil surface gets saturated with water that the water starts flowing. This rainwater may wash off a great deal of soil. A way has to be found, therefore, to prevent too much erosion and at the same time to provide enough drainage. One way to do this is the *broadbed-and-furrow system*.

42) Inadequate drainage excessive  
erosion broadbed-and-furrow  
system

This system makes sure that water is controlled and soil and water are conserved *where the rains fall*. The broadbed in this system is a rather flat bed or ridge about 90 cm wide. The furrow by the side of the bed is shallow, and it is 30 cm wide. It is only one-third the width of the bed. There is an important point to remember about these beds and furrows. They should be the same width and depth all along their length. Precise operations are important, so that crops can later be planted even on the shoulders of the ridges.

43) BROADBED  
90 cm wide  
FURROW  
60 cm wide

44) PLANTED ON SHOULDERS

45) USE GRAPHICS

*Steps in making the broadbed-and-furrow*

1. The direction of cultivation has to be set out, based on contour survey maps of the area.  
2. Beds have to be laid out in the direction of the contour. At ICRISAT, for making the beds, scientists use a 'multipurpose wheeled tool carrier' called the 'Tropicultor'. Two 'ridgers' are attached to this machine for making the beds.

46) MULTIPURPOSE TOOL  
CARRIER TROPICULTOR

47) Ridgers

The ridgers must not go too deep. They should work at a shallow depth. There should not be any sharp curves anywhere.

48) A BED FORMER

3. A bed former is used to shape out the ridges that have been made earlier.

4. If there are showers before the rainy season, another 'cultivation' is carried out to remove weeds and improve the shape of the broadbeds and furrows.

Now the seedbed is ready to receive the rainfall without too much loss. And the seedbed will keep moisture stored in the surface layers, so the moisture does not disappear into deep cracks.

49) GRADIENT  
0.4 to 0.8%

5. At ICRISAT, the broadbed-and-furrow system is laid out at a gradient of 0.4 to 0.8%. This gradient has several

- 50) It will be easier to water plants later, after the rains if necessary. (supplemental water application)
- 51) Animals and wheels will press soil down together only in the furrows.
- a) At the gradient furrows of 100 metres of less length have drained off excess water even during long rainy spells. They have done so without too much soil erosion.
- b) In this system, rows of plants can be spaced closer or farther apart, at various rates as the cropping system requires.
- c) Fertilizer can be placed precisely where it is required even when seed and fertilizer are separately placed, because the tractors wheels follow the furrows.

52) USE GRAPHICS

*Rainy Season Crops*

In those areas of peninsular India which have deep black soils and a dependable rainfall varying from 750-1100 mm, it is better to grow maize or sorghum in the rainy season. Millet may not be suitable for these conditions. When dry-sown crops are ready to harvest, there may be some rains. If it rains, high humidity may result and sorghum can be damaged by *molds* or *lodging*. Therefore, maize will be the safest crop.

53) maize is suitable

Scientists at ICRISAT and elsewhere are also engaged in research to develop varieties of sorghum that will not suffer damage in moist conditions.

54)

55) USE GRAPHICS

*Post-rainy-season Crops*

There are two ways of growing a second crop in the same season. An efficient way is intercropping. Intercropping needs land preparation only at one time for both crops. So the farmer will not have to prepare land again at the end of the rainy season. The second tillage may often be difficult because there may not be any rain at the time when it is to be done. Pigeon pea has been found successful as an intercrop with maize or sorghum at ICRISAT Centre.

56) Intercropping

But what crops the farmers choose to grow are related to market conditions. If the market demands more of the first or main crop, intercropping may not be feasible. A sequential crop would then be advisable. For a sequential crop, land will have to be prepared again, with minimum tillage.

57) VISUAL OR SLIDE OF SORGHUM & PIGEON-PEA INTERCROP

58) Minimum tillage

For minimum tillage, a shallow tilling is carried out of the space between the remaining stubble of the first crop on the bed. Then the furrows are re-ridged. This can be done by means of the Tractor. This kind of minimum tillage will be easy after a non-ratooning crop, such as maize.

After a ratooned crop, such as sorghum, shallow tillage may take a great deal of time. And during that time, valuable moisture in the soil can be lost.

If there is not enough moisture in the soil, it will not be possible to put in fertilizers. Nor will be possible to do any planting. And for the second crop, planting and placing fertilizer will have to be done separately. This means they will together take longer time to complete. Thus, all in all intercropping is to be preferred over sequential cropping, wherever possible.

Here, to sum up the achievement of this technology is Dr. S.M. Virmani, Principal Agroclimatologist at ICRISAT.

"At ICRISAT Center, where rainfall during the cropping season has varied annually from 500 mm to more than

The yields we obtained were 3000 kilograms or more of sorghum or maize per hectare, added to 1000 kilograms or more of pigeon-pea as an intercrop or chick-pea as a sequential crop,—should be compared to yields of 600 to 800 kilograms per hectare normally obtained in traditional cropping systems. There is an added advantage in that both cereals, high in calories, and pulses, rich in protein, are produced.

The improved systems thus help produce more and better food. And they also bring stability to the production system, an important factor in dryland farming.

This has been achieved because an interdisciplinary team of scientists—agroclimatologists, soil and water engineers, agronomists, agricultural economists, and crop improvement scientists—have worked together to make it happen.

**Check Your Progress 5**

- 1) Give some instances of technical or semi-technical terms explained in the script.  
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.....
- 2) Find at least one technical or semi-technical term of which the viewer can guess the meaning from the context or a visual clue.  
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- 3) Suggest an ending for the programme; visual and audio.  
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**38.5 LET US SUM UP**

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- 1) Documentaries and Features are produced for television as well as for radio. 'Features' occur in all the three media.
- 2) These two types of programmes and their combinations use all the resources of television, which can be generally classified for purposes of checking as pictures (still or animated, other than the studio shots) things, people (in their role as themselves), drama (people in make-believe roles), film and sound.
- 3) Apart from photographs and printed pictures, readily available, we use drawn pictures, written titles and so on. These are called 'graphics' and all the pictures etc. used, apart from people, are called 'captions'.
- 4) A Documentary has to be all fact, with documentary evidence. But sometimes 'non-facts' have to be mingled with facts for certain programmes. Therefore a hybrid programme, the feature-documentary was conceived. Then came several other combinations of the two.

- 5) The making of a Documentary involves initial conception, programme planning, research, gathering of material, compiling the material in sequence, deciding on a narrator, and the process of studio production.
- 6) A feature can look very much like a Documentary, but its aim is to create an impression on the mind, not to examine an issue. Its aim is truth rather than fact. It appeals to the imagination more than to the intellect. It is a talk, which has the force of drama.
- 7) The first part of the programme given here as an example has the force of a feature. But the rest of the programme is a Documentary, which does not introduce anything that cannot be checked for facts.

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## 38.6 KEY WORDS

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**Resources:** Materials, or talent, or information for productive use, or use as a means of something else, such as living itself.

**'Vox pop'** This is a short form for 'vox populi' meaning, voice of the people. People in the street are asked at random to face the camera or microphone, and their views recorded. This material is termed 'vox pop' and it is used in Documentaries, Features, Magazines etc.

**Hybrid** The word means cross-bred, as two types of plants are 'crossed' to get a third type: 'graft' mangoes, for instance.

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## 38.7 SOME USEFUL BROADCASTS

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- 1) 'The World This Week' is a Documentary type news magazine.
- 2) 'Bharat Ek Khoj' (Doordarshan) is a series of features reconstructing India's political, social and cultural history.

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## ANSWERS

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### Check Your Progress 1

- 1) Graphics are drawn pictures or materials with 'letterings'. The word is derived from 'graphio' meaning 'I draw, or write' in Greek. But quite often the word is used loosely to include painted pictures, although not photographs.
- 2) 'Vox pop' i.e., recordings of views, etc, of ordinary people selected at random, bring authenticity to the views conveyed in them.
- 3) Documentaries are by definition strictly factual, and will be expected to be so. But quite often, when people involved in an event are dead or otherwise not taking part in a programme, their roles have to be dramatized, and so have events in recent or not-so-recent history to be reconstructed. To enable these to be done, and at the same time to use factual material as well, hybrid programmes such as the Feature—Documentary, were conceived.

### Check Your Progress 2

- 1) The production of a Documentary involves initial conception, determining the aim and the aspect of the subject to cover, planning, research, structuring, collecting material, compiling the material, choice of an ending, choice of beginning, musical and visual effects if any, and final production, or putting it all together on 'videotape/audiotape (if radio).
- 2) In planning a Documentary (or Feature) we have to consider the title, the duration, information to be given, (other aspects of) content, key questions, interview sources, actuality, and structure (including the Narrator, a beginning and an ending).
- 3) We write the script for a Documentary when we have collected all the material for it. 'The script' is a way of compiling the material.

### Check Your Progress 3

- 1) The feature is about an *event*, while the documentary is about an issue.
- 2) The special characteristic of the message of a feature is its dramatic force. It tells the truth with dramatic force.
- 3) A Documentary or a Feature can end with a look into the future. Or it can end with the sights and sounds it began with.
- 4) Documentaries work by presenting facts, and facts are the 'building blocks' of 'education'. So educational broadcasters favour Documentaries.
- 5) Documentaries aim mainly at convincing the mind. Feature work by persuasion.

### Check Your Progress 4

- 1) Agricultural implements, vehicles, etc, mentioned in the script can be arranged in the video slots and shown as being used by young people.
- 2) A measuring gauge, to collect run off (water that runs off) could be displayed as one of the precision instruments, but this would only be a 'foretaste' as it will be shown again later in the programme.
- 3) It may be useful to render the song in English if the programme is going to be viewed outside India. If it is so rendered, the words will have to be 'captioned' and 'superimposed' over the video shots going with the song. If the words are said, they can be 'faded in' just after the song begins to 'fade out!'.  
One way of rendering the song could be,  
'With sparkling clean water, and glowing fresh fruit,  
Cool in the breath of the mountain breeze,.....'

### Check Your Progress 5

- 1) Brosion, intercropping, and sequential cropping, have been explained in the script.
- 2) Forage is a term which is not explained in the script. But its meaning, if the viewer does not already know it, can be guessed from the visuals shown when the word is used in the narration.
- 3) We can end the programme with a quick succession of the steps in the technology, followed by visuals showing a spectacular increase in 'the greening' and heaps of crops. Appropriate music in the audio channel will do. The 'credits' (names of persons responsible for the programme) can be superimposed on the ending visuals. This is just one way of ending the programme.