RADIO BROADCASTING

M.A. Journalism and Mass Communication

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FOREWORD

Since its establishment in 1976, Acharya Nagarjuna University has been forging ahead in the path of progress and dynamism, offering a variety of courses and research contributions. I am extremely happy that by gaining 'A' grade from the NAAC in the year 2016, Acharya Nagarjuna University is offering educational opportunities at the UG, PG levels apart from research degrees to students from over 443 affiliated colleges spread over the two districts of Guntur and Prakasam.

The University has also started the Centre for Distance Education in 2003-04 with the aim of taking higher education to the door step of all the sectors of the society. The centre will be a great help to those who cannot join in colleges, those who cannot afford the exorbitant fees as regular students, and even to housewives desirous of pursuing higher studies. Acharya Nagarjuna Universityhas started offering B.A., and B.Com courses at the Degree level and M.A., M.Com., M.Sc., M.B.A., and L.L.M., courses at the PG level from the academic year 2003-2004 onwards.

To facilitate easier understanding by students studying through the distance mode, these self-instruction materials have been prepared by eminent and experienced teachers. The lessons have been drafted with great care and expertise in the stipulated time by these teachers. Constructive ideas and scholarly suggestions are welcome from students and teachers involved respectively. Such ideas will be incorporated for the greater efficacy of this distance mode of education. For clarification of doubts and feedback, weekly classes and contact classes will be arranged at the UG and PG levels respectively.

It is my aim that students getting higher education through the Centre for Distance Education should improve their qualification, have better employment opportunities and in turn be part of country's progress. It is my fond desire that in the years to come, the Centre for Distance Education will go from strength to strength in the form of new courses and by catering to larger number of people. My congratulations to all the Directors, Academic Coordinators, Editors and Lesson- writers of the Centre who have helped in these endeavors.

Prof. P. Raja Sekhar

Vice-Chancellor (FAC)
Acharya Nagarjuna University

203JM21 **-RADIO BROADCASTING**

Unit 1

Brief history of broadcasting in India – Characteristics of radio – Objectives of radio- All India Radio, AIR code– special audience programmes – women – children – youth – industrial workers – farm and home - Education programmes

Unit 2

Studio operations – sound and acoustics – recording software - Different formats – dubbing techniques – AM (Amplitude Modulation) and FM (Frequency Modulation) - Audition – digitalization - microphone talents – mikes – Outdoor broadcast — Stages in programme production – Writing for radio – news feature – interviews – audience profile - Covering special events – Festivals – Sports – Radio Bridge.

Unit 3

Public Broadcasting- News Services Division (NSD) - Autonomy – PrasaraBharathi – Commercial broadcasting – Non-lapsable Fund (NLF) – Committees for development of AIR.

Unit 4

Organization structure of radio - Station director – Asst. Station Director - Programme Executive – Transmission Executives – Announcer – Other crew - Audience Research Unit.

Unit 5

Radio for development – Community radio Stations (CRS) – Campus Radio – Commercial FM radio - Emerging trends in Radio broadcasting - Terminology in Radio Production.

Suggested reading :

1. P.C.Chatterji*: Broadcasting in India. New Delhi: Sage.*
2. U.L.Barua*: This is All India Radio.*
3. MehraMasani*: Broadcasting and the People.*
4. H.R.Luthra*: Indian Broadcasting*.
5.G.C.Awasthi*: Broadcasting in India.*
6.Keval T. Kumar: *Mass Communication in India.*

RADIO BROADCASTING

CONTENT

LESSON- 1

BRIEF HISTORY OF RADIO BROADCASTING

OBJECTIVES

After reading this lesson, the reader should be able to understand the origin of broadcasting and a brief history of growth of radio in the world.

Some of the key objectives of this lesson are

- To analyse the importance of wireless communication in enhancing efficiency of communication
- To trace the growth of radio into broadcasting
- To critically analyse the role played by radio during World Wars
- To explain the significance of radio in nationalist propaganda
- To trace the growth of radio during post-war periods.

STRUCTURE

1.1 INTRODUCTION

Need to communicate is one of the basic needs of human existence. Communication is what differentiates humans from other living beings on this planet. Unlike the rest of their co-habitants, humans communicate not just for basic needs but also for many different reasons. A breakthrough in evolution of human communication is 'mediated mass communication'. Communication, which first began to share basic information, like the availability of food,

during hunting maneuvers and establishing social groups, gradually entered the fields of proclamations, advertising and war campaigns. Humans' need to stay connected despite long distances gave birth to communication methods like horse mails, light and sound signals and bird couriers. Postal mail was a successor to all these ancient forms of communication.

One discovery changed the entire communication process across the world forever. That was wired telegraph system. Through this system, information could be sent to farther distances without any personal intervention. This discovery monopolized entire field of communication until another great discovery; the discovery of the ability of electromagnetic waves to propagate through free space by James Clerk Maxwell in the year 1864. In other words, wired communication turned wireless.

Radio, is a forerunner of all forms of mass communication across the globe. With every new entrant into the field of mass media, radio found a different way to establish its hold in the sphere. Before World War I, radio was but a mere experimenting device. Broadcasting was in its experimental phase during this period. Radio enthusiasts and amateur experimenters transmitted radio messages out of fascination towards the new invention. Scattered experiments in broadcasting took place across various countries of Europe and America. Wars changed the course of radio communication and its importance in civil lives. This lesson explains the role played by radio in times of World War I and II and how radio changed from a broadcaster of entertainment to propagandist tool to development media over a period of two world wars.

1.2 WIRELESS TELEGRAPHY

Wireless telegraphy or radio telegraphy is a means of communicating with Morse code using radio technology. Before the advent of wireless technology, telegraphs used wired communication methods. It might sound a strenuous experiment in the wake of digital revolution the world is now submerged in, but in the year 1866, wired communication was such a novel and inevitable means of communication that a telegraph cable was laid across the Atlantic to connect Europe with America. This Trans-Atlantic cable ran across the Atlantic sea bed to enable better communication between the two continents.

Discovery of wireless technology was hence a breakthrough in human communication. It not only saved time but also saved huge costs in the field of communication. Followed by a series of experiments and discoveries Guglielmo Marconi finally designed the first complete

wireless telegraphy system based on airborne Hertzian waves and successfully transmitted wireless signals across the Atlantic Ocean in the year 1901.

1.3 VOICE TRANSMISSION THROUGH RADIO

While wireless telegraphy and wired telegraphy vied with each other for space in the field of communication, experiments continued to transmit voice signals through radio waves. First voice signals were said to be transmitted using radio in the year 1900 by Reginald Aubrey Fessenden, a Canadian experimenter. He sent a message to his colleague across a mile apart. The first words to have been transmitted through radio were, "One, two, three, four. Is it snowing where you are Mr. Thiessen? If it is, telegraph back and let me know." Later, in 1906, Reginald Aubrey Fessenden produced an hour of talk and music from Brant Rock, Massachusetts. Thus began the arduous journey of radio for voice transmission across the globe that shall stand the test of time even after the advent of internet and its ruthless dictatorship of the entire field of communication.

Radio transmission was not meant for broadcasts in its early experimenting years. Before radio took over broadcasting, in few European countries, there was already a system whereby news, music, live theatre, music hall, fiction readings, religious broadcasts, etc., were available in private homes via the conventional telephone line. In Britain this system was known as Electrophone. The 1906 Brant Rock broadcast was only for experimental purpose. It took almost a decade and half to commercially launch radio broadcasting.

1.4 ORIGIN OF RADIO BROADCASTING

Scattered experiments in radio broadcasting took place in early 20th century. From 1900 to 1920s, many experimenters started experimenting with radio as a fascination. One such experimenter, Charles Herrold began operating a wireless transmitter with which he started providing regularly scheduled voice and music programs to a small local audience of amateur radio operators. Herrold's may have been the first such continuing service in the world.

The term broadcast is said to be coined by early radio engineers from the mid-western United States to distinguish electronic transmissions that are intended for general public reception, as distinguished from private signals that are directed to specific receivers. Herrold is also quite often considered to be the man who coined the term Broadcasting. Many amateur radio transmissions took place in the first two decades of 20th century. During World War I, government officials across the globe restricted these private transmissions as they intervened

with military operations. Radio played a key role in military communication during this period.

After World War I, importance of radio had been greatly acknowledged by civilians. It was in post war period of 1920s that radio broadcasting began on a scheduled and continuous basis. Radio as a commercial broadcaster also took birth during this period.

1.5 RADIO DURING WORLD WAR I

Radio, in early 1900s was used to communicate with ships on sea. Lack of clarity and the cost involved in radio transmissions made people rely mostly on telegraph services to communicate with their near and dear. It was only during World War I that the efficiency of radio realized. During the war, military extensively used radio to communicate with their soldiers. Confidentiality involved in military communication was clearly maintained by radio transmissions than legible coded messages. Where a personal messenger was required to send information, a radio message was sent instead. After World War I, radio became a chosen means of communication for many civilians as well. Radio sets were purchased for private use in 1920s.

1.6 RADIO AS A PUBLIC BROADCASTER

The journey of radio thus moved into broadcasting after World War I. Soon, private and public funded radio clubs as well as broadcasting companies took birth. Radio for public broadcasting is said to have been initiated by KDKA, a radio station from Pittsburg. BBC or British Broadcasting Company, as it was then known, was founded in the year 1922 as a commercial broadcasting company. In 1926, it turned into British Broadcasting Corporation under the aegis of the Crown, now becoming the world's oldest national broadcaster. Radio Broadcasting Corporation of America founded National Broadcasting Company, one of the world's largest broadcasting companies, in 1926. Radio became so popular within a decade and soon broadcasting spread to a wide spectrum of entertainment, news and informative programs.

1.7 RADIO DURING WORLD WAR II

Though Radio played a significant role in both the world wars, the actual role it played differed on both occasions. During World War I, radio was not a public broadcaster. It was used to relay messages to soldiers on ships and in the midst of war. It was, more or less, used for confidential military purposes. The period between World War I and World War II saw a drastic change in the status and relevance of radio in the society. By the beginning of World

War II, radio became a source of mass entertainment and a highly influential medium for news broadcasting. During World War II, radio was hence used to motivate civilians to join war, to entertain soldiers at war and to spread propaganda among citizens as well as rivals alike.

Allies and Axis powers tried their best to counter each other with their propaganda techniques using radio. Edward R Murrow's coverage of Battle of Britain was an instant hit with the civilians. Nazi Germany's efforts to counter pro-British sentiment among its citizens were also aided by radio broadcasting. For victims of Nazism, radio was an only source of information. Radio also played an important role in announcing nightly raids on Germany by the British, which greatly helped the civilians stay indoors during these raids thus saving millions of innocent lives. Thus, radio played a great role in times of both war and peace.

1.8 RADIO IN POST-WAR WORLD

After World War II, almost all countries across the globe went back to mending their ways with their radio programs. Use of radio for solely nationalist propaganda and military call was once again molded to suit civilian needs. Entertainment revamped in some countries. Third world countries, however, slowly tapped the potential in radio for developmental campaigns and spread of awareness and information. Radio, thus turned from a propagandist medium to development media.

Advent of other forms of media like television and internet slowed down the growth of radio broadcasting and infringed upon its monopoly on mass communication. However, radio stood the test of time by finding other ways to cater to the needs of the masses. From development media, radio later turned into participatory media and community media.

1.9 SUMMARY

Need for communication is a basic need for human existence. Communication is one the few walks of life that revolutionised global connectivity. Before the advent of radio, wired telegraphy system played a key role in maintaining long distance connectivity. With the invention of wireless transmission of signals followed by voice, greatly changed the way the World interacted. Radio, which began as a wireless telegraphy service, soon entered the field of mass communication. Broadcasting, an alternative field in communication took birth in a post-war world. Radio broadcasting is the beginning of a revolution in the field of mass communication that shall soon erase the virtual boundaries between nations and even continents.

Radio, one of the most widely used means of mass communication, across the globe first began its journey as a wireless telegraphy system. Its importance is recognised during World War I, following which, radio turned into a private broadcaster of entertainment and news shows. World War II made use of this immensely influential mass media tool to spread propagandist policies and to encourage more civilians to enter or support war. Radio was both a boon and a bane during World War II. After World War II, radio once again was reverted to its original role of entertainer and news provider. Overshadowed by television and internet in later years, radio found better ways to survive. It gradually changed its role as a development media and in later years as a participatory and community media. Origin and growth of radio in India shall be detailed in further chapters.

1.10 GLOSSARY

- **Electromagnetic Waves:** Electromagnetic waves are waves that are created as a result of vibrations between an electric field and a magnetic field.
- **Hertzian waves:** An electromagnetic wave produced by the oscillation of electricity in a conductor (as a radio antenna) and of a length ranging from a few millimetres to many kilometres.
- **Telegraph:** An apparatus, system, or process for communication at a distance by electric transmission over wire
- **Wireless Telegraphy:** Wireless telegraphy or radiotelegraphy is transmission of telegraph signals by radio waves.
- **Morse Code:** A code consisting of variously spaced dots and dashes or long and short sounds used for transmitting messages by audible or visual signals
- **Broadcasting:** Broadcasting is the distribution of audio and/or video signals (programs) to a number of recipients ("listeners" or "viewers") that belong to a large group.
- **Mass Communication:** The imparting or exchanging of information on a large scale to a wide range of people.
- **Propaganda:** Dissemination of information—facts, arguments, rumours, half-truths, or lies—to influence public opinion. Deliberateness and a relatively heavy emphasis on manipulation distinguish propaganda from casual conversation or the free and easy exchange of ideas.
- **Nazism:** The political principles of the National Socialist German Workers' Party.
- **Commercial Broadcast:** Broadcasting of television programs and radio programming by privately owned corporate media, as opposed to state sponsorship.
- **Development Media:** Media used in the field of communication to facilitate social development.
- **Participatory Media:** Participatory media is media where the audience can play an active role in the process of collecting, reporting, analyzing and disseminating content.

- **Community Media:** Local alternatives to mainstream media that function in service of or by a community.

1.11 SELF-ASSESSMENT QUESTIONS

1) Is wired communication still existing in 21st century? If yes, where and how do you see wired communication in practise?
2) How do you think wireless communication changed the course of human communication forever? What are the advantages and disadvantages of wireless communication?
3) What do you understand by the terms broadcasting and private transmissions? Explain the role played by radio in day-to-day life of a second millennial.
4) Differentiate between the role played by radio during wars and during peaceful times.
5) How do you think radio could influence masses in nationalist propaganda techniques?

   Is mass media still being used to influence mass opinions? If yes, then how?
6) What are the advantages and disadvantages of radio broadcasting during World War II?

1.12 SUGGESTED READINGS

1) Baierlein, R. (1992). *Newton to Einstein: The Trail of Light: An Excursion to the Wave-Particle Duality and the Special Theory of Relativity.* United Kingdom: Cambridge University Press.
2) Barfield, R. E. (1996). *Listening to Radio, 1920-1950.* Praeger: Performing Arts.
3) Britton, J. A. (2013). *Cables, Crises, and the Press: The Geopolitics of the New International Information System in the Americas, 1866–1903.* Mexico: University of New Mexico Press.
4) Fari, S. (2015). *Formative Years of the Telegraph Union.* United Kingdom: Cambridge Scholars Publishing.
5) Frank, A. (1993). *The Diary of a Young Girl.* Toronto: Bantam Books.

Horten, G. (2003). *Radio Goes to War.* California: University of California Press.

LESSON – 2

BROADCASTING IN INDIA

OBJECTIVES

After going through this lesson, the reader should be able to understand all about origin and growth of broadcasting in India.

Key objectives of this lesson are:

- To detail the entry of radio in India
- To narrate a brief history and early years of radio in India
- To analyse the development of radio in India.
- To explain all about the status of broadcasting in India

STRUCTURE

2.1 INTRODUCTION

Unlike earlier inventions, radio came to India almost as it began gaining momentum in the West. The colonial rulers brought radio to India, the way they brought other means of communication like the printing press and telegraph. Radio, had a different beginning in India, when compared to the countries of its origin. For many years, radio was the only source of information to Indians, given most of the country was illiterate to rely on print in those years. Growth of radio in India can be segmented into many parts and diverse case studies emerge from this study. This lesson details the origin and early years of radio in India.

2.2 RADIO CLUBS

Like everywhere else, Radio, in India, began not as an organization but as a cluster of scattered experiments in radio transmissions across the country, mostly in cities like Bombay, Calcutta and Madras. Later radio clubs started operating across various presidencies. These clubs as well as the experimental transmissions were run by the British and hence though radio entered India, way back in 1920s radio was not available to Indians until it became a public broadcaster almost a decade later. Some of the prominent radio clubs of India were setup in Calcutta, Bombay, Madras and Lahore. Radio Club of Calcutta (1923) is assessed to be one of the first radio clubs in the country, followed by Madras Presidency Radio Club (1924).

Radio clubs were mostly used to transmit entertainment programs as well as to disseminate news from 'Home'. Announcements meant for Government officials were transmitted through radio and radio was a luxury that only the ruling class had the privilege to possess.

Times of India records that it transmitted a broadcast from its roof on August 20, 1921. Licensed transmission, however, began from February 23, 1922.

2.3 GROWTH OF BROADCASTING IN INDIA

Broadcasting in India thus began about 13 years before AIR came into existence. In June 1923 the Radio Club of Bombay made the first ever broadcast in the country. This was followed by the setting up of the Calcutta Radio Club five months later. The Indian Broadcasting Company (IBC) came into being on July 23, 1927, only to face liquidation in less than three years.

In April 1930, the Indian Broadcasting Service, under the Department of Industries and Labour, commenced its operations on an experimental basis. Lionel Fielden was appointed the first Controller of Broadcasting in August 1935. In the following month Akashvani Mysore, a private radio station was set up. Milestones of All India Radio

The phenomenal growth achieved by All India Radio through decades has made it one of the largest media organizations in the world. Today AIR reaches out to 99.18% of the population spread over about 91.85% of the area through 262 broadcasting Centres. The inception can be traced back to the enforcement of the Telegraph Act on October1, 1885.

2.4 EARLY HISTORY

The history of news broadcasting in India is much older than that of All India Radio. The first news bulletin in the country went on the air from the Bombay Station on July 23, 1927 under a private company, the Indian Broadcasting Company. A month later on August 26, 1927 another bulletin in Bengali was started from the Calcutta Station. Until 1935, two bulletins, one each in English and Hindustani were broadcast from Bombay and a bulletin in Bengali was broadcast from Calcutta. The Indian Broadcasting Company went into liquidation in March, 1930 following which broadcasting came under the direct control of the Government of India. The service was designated as the Indian State Broadcasting Service. It was renamed All India Radio on June 8, 1936.

2.5 DEVELOPMENT

The real breakthrough in news broadcasting came after January 1936 when the first news bulletin from the Delhi Station went on the air on January 19, 1936 coinciding with the starting of its transmission. Besides, news bulletins in English and Hindustani, talks on current affairs were also started from the Station in both the languages.

The Central News Organization was set up on August 1, 1937. Mr. Charles Barnes took charge as the first News Editor in September and he later became the first Director of News. The outbreak of the Second World War in 1939 gave an impetus to the development of the Organization. The Monitoring Service was set up in 1939 to monitor foreign broadcasts. In 1943, the External Broadcast Unit was set up under the Director of News. By 1945, the Central News Organization was handling news bulletins in different Indian languages as well as in the External Services. After Independence, news broadcasts of AIR grew both in quantity and quality. More emphasis was laid on national and regional news bulletins.

2.6 BROADCASTING IN INDIA – MINISTRY OF INFORMATION AND BROADCASTING

Broadcasting Wing (BC Wing) is the concerned wing for all matters related to regulation of content telecast on private satellite TV channels and transmitted/re-transmitted through cable television network in terms of the Programme and Advertisement Codes prescribed in the Cable Television Networks (Regulation) Act, 1995 and the Cable Television Networks Rules, 1994 framed there under and private FM Radio channels and Community Radio Stations as per the GOPA guidelines and AIR Broadcast Code. Every broadcaster through various Policy Guidelines has been mandated to follow the Programme and Advertisement Code prescribed under the Cable Television Networks (Regulation) Act, 1995 and Rules framed thereunder.

For regulation of content on private Satellite TV channels, the Ministry has constituted an Inter-Ministerial Committee headed by Additional Secretary, Ministry of Information and Broadcasting. The Committee comprises officers from Ministries of Home Affairs, Defence, Law & Justice, External Affairs, Health and Family Welfare, Women & Child Development, Consumer Affairs and a representative of Advertising Standards Council of India. The IMC functions in a recommendatory capacity. In order to enforce the Cable Act and Rules at the State/District level, the Ministry issued an order on 06.09.2005 for "Monitoring Committee for the Programmes and Advertisement telecast by Cable TV Channels" at the State/District level. Detailed guidelines were issued on 19.02.2008 providing for State/District Level Monitoring Committees. Subsuming the earlier orders, detailed guidelines regarding constitution of State/District Level Monitoring Committees have been issued on 26.04.2017 to all Chief Secretaries of States and Union Territories.

The guidelines are available on the Ministry's Website https://mib.gov.in

The Government has also established Electronic Media Monitoring Centre (EMMC) as state-of-the-art facility with a view to monitor and record the content of satellite TV channels with regard to violation of Programme and Advertisement Codes enshrined under the Cable Television Networks (Regulation) Act, 1995 and Rules framed thereunder. EMMC is equipped to monitor and record around 900 channels and currently monitors all permitted channels.

Further, there are Self-regulatory mechanisms regarding monitoring content violation, telecast/broadcast on private TV channels are also available where complaints can be lodged by public as mentioned below:

News Broadcasters Association (NBA) has set up News Broadcasting Standards Authority (NBSA) for complaints regarding News Channels (in respect of member channels) – www.nbanewdelhi.com

Indian Broadcasting Foundation has set up Broadcasting Content Complaints Council (BCCC) for complaints regarding non-News and entertainment channels (in respect of member channels) – www.ibfindia.com

Advertising Standards Council of India (ASCI) for complaints regarding advertisement – www.ascionline.org

TV Section in Broadcasting Wing is concerned with grant of licenses for uplinking/downlinking of TV channels, uplinking Hub/Teleport, uplink facility by a News

Agency, permission for use of SNG/DSNGs and related regulatory aspects, as per the uplinking/downlinking guidelines, 2011 as amended from time to time.

BP&L Section in Broadcasting Wing is concerned with policy matters related to administration of Cable Television Networks (Regulation) Act, 1995 and Rules there under, The Sports Broadcasting Signals (Mandatory Sharing With Prasar Bharati) Act, 2007 and Rules there under, DTH Guidelines, HITS Guidelines, IPTV Guidelines and TRP Guidelines and miscellaneous policy issues pertaining to broadcasting sector.

Apart from dealing with framing of Guidelines for DTH, HITS, IPTV and TRP agency, the requests for grant of permission/licence/registration under these guidelines from applicants are processed in BP&L Division. The issues related to amendments in the policy/guidelines are undertaken by the BP&L Division.

The proposals to declare the sporting events/games of national importance under the Sports Broadcasting Signals (Mandatory Sharing with Prasar Bharati) Act, 2007 are processed in the BP&L Division in consultation with Ministry of Youth Affairs and Sports, Ministry of Law and Justice and Prasar Bharati and the sporting events/games which are identified as national importance are notified in the Gazette of India.

Further the Telecom Regulatory Authority of India (TRAI) gives its recommendations from time to time on Telecommunication and Broadcasting sectors on request from the Government or suo-motu. The recommendations given by TRAI in respect of Broadcasting sector are processed by BP&L Section and if required, arranges to convene meetings of the Inter-Ministerial Committee (IMC) formed to examine such recommendations.

To provide efficient and transparent regime for the growth and management of Broadcasting Sector, an online portal “Broadcast Seva” has been developed and launched. The Broadcast Seva portal provides single point facilities to the various stakeholders and applicants for various permissions, registrations, licences etc. issued by MIB for broadcast related activities.

2.7 SUMMARY

Broadcasting in India began as early as 1920s. Its journey started from radio clubs and amateur radio stations to public broadcasting. Influence of radio is understood by the government and hence radio broadcasting has been taken up as a public institution. All India Radio, is a national public broadcaster that serves as a mouthpiece for the government as well as a key source of infotainment for its wide network of users. All India Radio and its role as a public broadcaster are discussed in the next lesson.

2.8 GLOSSARY

- **Public Broadcaster**: A broadcasting company funded or subsidized by the State or public funds; a non-commercial broadcaster
- **Frequency Modulation:** The modulation of a radio or other wave by variation of its frequency, especially to carry an audio signal.
- **Information and Broadcast Ministry:** The Ministry of Information and Broadcasting (Ministry of I&B) is a ministerial level agency of the Government of India responsible for the formulation and administration of rules, regulations and laws in the areas of information, broadcasting, the press and the Cinema of India.

2.9 SELF-ASSESSMENT QUESTIONS

1) What do you think is the possible reason behind the beginning of radio in India?
2) Why did government takeover radio into a public service institution?
3) Explain, in your words, the impact of radio on its early listeners.

2.10 SUGGESTED READINGS

1) Fielden, L. (1960). *The Natural Bent.* London: Methuen.

Pinkerton, A. (2008). Radio and the Raj: Broadcasting in British India (1920-1940). *Journal of the Royal Asiatic Society*, 167-191.

LESSON- 3

GROWTH OF BROADCASTING IN INDIA

OBJECTIVES

After reading this lesson, the reader should be able to understand the growth of broadcasting in India with key dates and events.

Key objectives of this lesson are:

- To impart an understanding of the growth of broadcasting in India
- To detail important innovations in radio broadcasting in India
- To describe change in trends of All India Radio and Doordarshan

STRUCTURE

3.1 INTRODUCTION

All India Radio, for many years has been the sole form of radio broadcasting in the country. Growth of All India Radio hence reflects the growth of broadcasting in India. This lesson jots down important dates and events in All India Radio's growth pattern. The growth is given in a chronological form to avoid chaos. Through this growth chart, the reader shall be able to study changing trends in broadcasting in India.

3.2 RADIO BROADCASTING BEFORE INDEPENDENCE

1) Programmes were broadcast by the Radio Club of Bombay in June 1923.

2) Calcutta Radio Club put out programmmes by November 1923.
3) Broadcasting Service was initiated by the Madras Presidency Radio Club by July, 1924.
4) Indian Broadcast Company (IBC), Bombay Station was inaugurated by Lord Irwin, the Viceroy of India on July 23, 1927.
5) Calcutta Station of IBC was inaugurated on August 26, 1927 :
6) IBC went into liquidation on March 1, 1930
7) Indian State Broadcasting Service was commenced under Department of Industries and Labour on experimental basis on April 1, 1930.
8) Lionel Fielden was appointed the first controller of Broadcasting in India on August 30, 1935
9) Akashvani Mysore, a private radio station, was set up on September 10, 1935
10) First news bulletin was broadcast from AIR on January 19, 1936
11) Indian State Broadcasting Service became All India Radio on June 8, 1936
12) Central News Organisation came into existence on August 1, 1937
13) AIR came under Department of Communication in November, 1937
14) External Service was started with Pushtu broadcast on October 1, 1939
15) AIR came under the Department of I&B on October 24, 1941
16) Akashvani Mysore was taken over by Maharaja of Mysore on January 1, 1942
17) AIR came under the Department of Information & Arts on February 23, 1946
18) Department of Information and Arts changed to Department of Information and Broadcasting on September 10, 1946

1947, at the time of independence, there were six radio stations in India.

The six radio stations are at:

1) Delhi,
2) Bombay,
3) Calcutta,
4) Madras,
5) Tiruchirapalli and
6) Lucknow

Three radio stations were partitioned into Pakistan (Peshawar, Lahore and Dacca).

The journey of AIR thus began with six radio stations after independence.

3.3 EARLY YEARS OF BROADCASTING IN INDEPENDENT INDIA

In the first three decades after attaining independence, Indian government brought innumerable reforms in the field of broadcasting.

Few important dates and reforms to be noted are:

1. September, 1948: Central News Organisation (CNO) was split up into two Divisions, News Service Division and External Service Division (ESD).
2. July 20, 1952: First National Programme of Music was broadcast from AIR.
3. July 29, 1953: National Programme of Talks (English) commenced from AIR.
4. 1954: First Radio Sangeet Sammelan was held.
5. August 15, 1956: National Programme of Play commenced.
6. October 3, 1957: Vividh Bharati Services were started.
7. November 1, 1959: First TV Station in Delhi started as part of AIR.
8. November 1, 1967: Commercials on Vividh Bharati introduced.
9. July 21, 1969: Yuv-Vani service started from Delhi.
10. 1974: Akashvani Annual Awards instituted.
11. April 1, 1976: Doordarshan separated from AIR.

3.4 BROADCASTING AFTER AIR SEPARATED FROM DD

All India Radio separated from Doordarshan on April 1, 1976 to further balance broadcasting sector based on radio broadcasts and television broadcasts. With increasing number of radio stations and television channels, this move was made to cope with the bulk of broadcasting requirements. From AIR's separation with DD to the inception of Prasar Bharati Corporation, many significant changes took place in broadcasting in India.

Few important dates to be remembered are:

1. 1977: Introduction of political party broadcasts.
2. July 23, 1977: First ever FM Service was inaugurated from Madras.
3. May,1983 : AIR Baroda became a CBS station.
4. October 30,1984 : First Local Station at Nagarcoil started.
5. January 26,1985 : Commercials on Primary Channel introduced.
6. August 15,1985 : Introduction of hourly news bulletins.
7. 1985 : All AIR Stations were provided with 5 channel satellite receiver terminals.
8. May 18,1988 : Introduction of National Channel.
9. April 8,1989 : Commissioning of Integrated North East Service.

10. March 2, 1990 : The 100th Station of AIR commissioned at Warangal (A.P.).
11. 1990 : AIR introduced Lassa Kaul Award for the best production on the theme of National Integration.
12. 1990 : AIR introduced Award for the best News Correspondent of the year.
13. October 2,1991 : Vividh Bharti Panaji became a CBS Channel.
14. January 10,1993 : Introduction of Phone-in-programme at AIR Delhi.
15. April 1, 1993 : The150th Station of AIR inaugurated at Berhampur (Orissa).
16. August 15,1993 : Introduction of selling of Time Slots on FM Channel to private parties at Delhi - Mumbai.
17. April 1, 1994 : Sky Radio became operational.
18. September 10,1994 : Multi Track Recording Studio commissioned at Mumbai.
19. September 28,1994 : Four 500 KW Superpower shortwave transmitters at Bangalore, inaugurated making Bangalore one of the biggest transmitting centres in the world.
20. January 15,1995 : Radio paging service inaugurated.
21. August 5,1995 : Multi-track recording studios inaugurated at Chennai.
22. 1995 : AIR introduced Akashvani Awards for best Audience Research Survey Report.
23. February 1,1996 : Foundation stone laid for new Broadcasting House in Delhi.
24. May 2,1996 : Launching of AIR on-line Information Service on Internet.
25. January 13,1997 : Audio in real time on Internet Service started.
26. November 23,1997 : Prasar Bharati Corporation came into existence.

3.5 GROWTH OF BROADCASTING UNDER PRASAR BHARATI

Prasar Bharati, is an autonomous body setup to regulate and streamline all forms of broadcasting like radio and television. It is established under the ministry of Information and Broadcasting. Prasar Bharati, being an autonomous body gave immense scope for expansion and new trends in broadcasting.

Few milestones in broadcasting after the inception of Prasar Bharati are:

1) January 26,1998 : Radio on Demand' Service on 2nd FM Channel.
2) February 25,1998 : AIR news on telephone, live on internet.
3) April,1998 : Sale of Time Slots on FM stopped.
4) August 29,1998 : Prasar Bharati Bill was passed by Lok Sabha on 31.7.1998 made operational through an ordinance.
5) November, 1999 : AIR launched a daily Malayalam Service for the Gulf Region.

3.6 BROADCASTING IN 21ST CENTURY

21st century, rightly called the age of information, saw unforeseen changes in broadcasting, like the entry of digital radio, podcasting, software-defined radio systems etc. Amateur radio hobby has also regained its lost vigour owing to its importance in times of emergencies. These new trends are discussed in another lesson. Only few milestones are noted here with dates.

2000

1) June, 2000 : Community Radio Stations commissioned at Nongstoin & William Nagar in (Meghalaya), Saiha (Mizoram), Tuensang and Mon in Nagaland.
2) July 17,2000 : Regional Staff Training Institute (Tech.) started functioning at Bhubaneshwar (Orissa)

2001

1) September 1, 2001: AIR launched Infotainment channels, FM-II, at the four metro's., Chennai, Delhi., Kolkata, Mumbai.

2002

1) February 27, 2002 : AIR launched its first ever digital satellite home service to cater to the Indian sub-continent and South East Asia.
2) July 2002 : 75 years of Broadcasting celebrated.

2003

1) April 2003 : Marketing Division of Prasar Bharati inaugurated.

2004

1) January 26th, 2004 : Bhasha Bharati channel of AIR launched at Delhi.
2) January 26th, 2004 : Classical Music channel launched at Bangalore.
3) March 29th, 2004 : National Artists Awards ceremony held at Hyderabad.
4) April 1st, 2004 : Launch of Kisan Vani Programme from 12 stations.
5) December 16,2004 : Prime Minister Dr. Manmohan Singh inaugurated DTH Service of AIR & Doordarshan.12 AIR channels in different regional languages from various state capitals made available countrywide through the KU Band on DTH platform of Prasar Bharati.

2005

1) 23rd Aug, 2005 : New Broadcasting House equipped with digital studio setup for News Service Division, External Service and Home Service inaugurated by Hon'ble Minister of I&B and Culture.

2006

1) 15th & 16th Feb 2006 : Commonwealth Broadcasting Association conference held at Delhi.

2008

1) A new DTH Channel, Radio Kashmir, Srinagar added in the Direct to Home Service of AIR. There are now 21 radio channel available countrywide through the KU Band DTH Platform of Prasar Bharati (DD +), benefitting the listeners all over India.

2009

1) Computerization of AIR stations and offices in progress to facilitate online exchange of information and improvement of efficiency.
2) Permanent studio facilities equipped with Digital equipment and computerized Hard Disc Work Stations for recording, dubbing, editing & playback provided at Jaipur (Raj) & Tawang (Arunachal Pradesh).

2010

1) An exclusive dedicated FM channel "AIR FM DILLI" with one KW transmitter installed at AIR Broadcasting House Delhi. This channel was available on 100.1 MHZ in National Capital Region.
2) AIR 'News on Phone' Service made available at 14 places i.e. Delhi, Mumbai, Chennai, Patna, Hyderabad, Ahmedabad, Jaipur, Bangalore, Thiuvananthapuram, Imphal, Lucknow , Raipur, Guwahati, and Shimla.

2011

1) Coverage of World Cup Cricket.
2) FM Gold started 24 Hours Service from 2nd October, 2011.

2012

1) Bangladesh recognizes Akashvani for its contribution in Bangladesh Liberation War on 27th March, 2012 at Dhaka. Sh. L. D. Mandloi, DG, AIR received the award at a special ceremony in Dhaka.

2014

1) Mann ki Baat, a series of episodes, was initiated by Prime Minister Narendra Modi on 3 October, 2014.

2019

1) Prasar Bharati launches Digital Terrestral Television broadcasting, simply known as DTT.

3.7 SUMMARY

Broadcasting is a continuously evolving field in India. It began its journey from amateur radio clubs and now is one of the largest organizations in the country. Parasar Bharati, an autonomous body that looks after all broadcasting formats in the nation, strives day-in and day-out to bring new trends into broadcasting while further enhancing its reach and exposure to its audience. Objectives and characteristics of radio are discussed in the next lesson.

3.8 GLOSSARY

- **DTT:** Digital terrestrial television (DTTV or DTT, or DTTB with "broadcasting") is a technology for terrestrial television in which land-based (terrestrial) television stations broadcast television content by radio waves to televisions in consumers' residences in a digital format.
- **Transmitter:** A set of equipment used to generate and transmit electromagnetic waves carrying messages or signals, especially those of radio or television.
- **Medium Wave:** Medium wave (MW) is the part of the medium frequency (MF) radio band used mainly for AM radio broadcasting. A radio wave of a frequency between 300 kHz and 3 MHz.
- **Short Wave:** A radio wave shorter than that used in AM broadcasting, corresponding to frequencies of over 1600 kilohertz: used for long-distance reception or transmission. A radio wave of a wavelength between about 10 and 100 m (and a frequency of about 3 to 30 MHz).
- **FM:** A method of impressing a signal on a radio carrier wave by varying the frequency of the carrier wave.

3.9 SELF-ASSESSMENT QUESTIONS

1) What are the early developments of radio broadcasting in India?
2) Do you think there is a difference in radio development before and after independence?
3) Why do you think AIR separated from Doordarshan?
4) Write a brief note on radio broadcasting in 21st century.

3.10 SUGGESTED READINGS

1) Awasthy, G. C. (1965). *Broadcasting in India.* India: Allied Publishers.
2) Luthra, H. R. (1986). *Indian Broadcasting.* New Delhi : Publications Division, Ministry of Information and Broadcasting.
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LESSON- 4

OBJECTIVES AND CHARACTERISTICS OF RADIO

OBJECTIVES

After reading this lesson, the reader should be able to understand the key objectives of radio broadcasting and important characteristics of radio that makes it a reliable means of mass communication.

Key objectives of this lesson are:

- To describe objectives of radio as mentioned in AIR code.
- To detail characteristics of radio
- To impart an understanding about the importance and relevance of radio as a mass communication medium
- To explain about various services of All India Radio

STRUCTURE

4.1 INTRODUCTION

Radio is a means of mass communication that stood the test of time owing to its unrelenting role in broadcasting relevant, authentic and credible content to its audience. As and when radio seems to face a set-back, radio rises with a new role to play in the field of communication. It began its journey as a colonial source of information from Home. Later, it aided in the freedom movement with its amateur radio clubs. Radio then turned into a government mouth piece post-independence. Later, radio took up the role of public service

broadcaster and now radio is taking leaps and bounds in community development and emergency communications.

Radio has a set of objectives to meet in order to maintain its standards and ethics in broadcasting. These objectives are discussed in this lesson along with characteristics of radio to explain the relevance and importance of radio in mass communication in the country.

4.2 CHARACTERISTICS OF RADIO

Radio has certain characteristics that make it a reliable means of mass communication. These characteristics make radio stand out from the rest of the media formats.

Some of the key characteristics are described below.

1) Sound Media

   Radio is a sound medium. It relies on audio production and hence is also known as a "hear" copy. Owing to its sound feature, radio can be used on the move, while in transit as well as while at work. One need not spend exclusively on radio. Radio can be a parallel presence in one's daily chores.

2) Universal Media

   Radio is a universal medium. It does not differentiate between its audiences. Unlike print media that is meant for literates, television media that is meant for audience-at-home, radio is a medium that caters to all sections of people. A fisherman at deep sea as well as a trekker on hill top can listen to radio alike a home maker cooking roti in the kitchen and a senior citizen asleep in his balcony.

3) Contemporary Media

   Radio, in comparison to folk and print media, is a contemporary media. Also, in 21st century, radio is again gaining popularity through its reliability and scope for mobility.

4) Cost Effective

   Radio, since its early years, has been cost-effective. A radio device can be owned by almost all kinds of citizens without worrying about its cost. Radio, unlike other media, is not a luxury but a necessity. Radio's cost effectivity is what makes it dearer to many sections of population.

5) Flexible

   Radio is not bound by rigid rules on content or formats. Radio changed its form from a colonial secret to independence fighter to government mouthpiece to social servant to community broadcaster. Whenever a need for new form of communication arises, radio stands up to the cause and takes on the role of a communicator in times of need.

6) Portable

   Radio is portable and in the digital age that we live in, fits in a smartphone while maintaining its integrity in services. Portability is what gave a boom to radio during its one set-back period. Radio in cars and other vehicles pushed radio back to spotlight.

7) Direct

   Radio talks directly to an individual. In audio-visual formats, visuals mostly divert a viewer's attention and the copy is also written for visuals. Radio, however, talks to the individual directly. It sounds more like a conversation than a recorded broadcast on radio.

8) Individual Appeal

   Radio has an individualistic appeal. The hear copy cues audience to focus on radio content and once focused radio has a huge impact on an individual owing to its individual appeal. This is the reason why government bodies prefer radio to other forms of mass media when it comes to having a conversation with their citizens. Narendra Modi's Mann ki Baat is one example to explain the role played by radio in enhancing individual appeal.

9) Variety of Audience

   Radio has a variety of audience owing to its diverse programme contents. From Kisaan to Jawaan, from students to senior citizens, radio attracts all kinds of audience with its balanced programming structure.

10) Melody of Human Voices

    Radio is a melody of human voices. It is through radio that the beauty of human voice can be celebrated beyond any measure. Music, hence, is a key component of radio programmes.

11) Socially Responsible

    Radio is a socially responsible medium of communication. Radio abides by a code of conduct and it makes sure that it always stands credible and accountable through its broadcasts.

12) Developmental Channel

    Radio is a channel for development. Community radio and local radio system that is now making headlines is best example for radio's role in development of a community. Radio has been since its inception playing a key role in acting as a development channel through its broadcasts.

13) Change Agent

    Radio is a change agent like all other forms of media. Many new trends entered the society with the help of radio. Radio's direct appeal and individual centric broadcasts greatly supported campaigns like family planning, adult literacy and education for all. Government campaigns are mostly run on radio keeping in view radio's impact in acting as a change agent.

14) Emotional Touch

    Radio, the medium of voice and individual appeal, has an emotional touch to its broadcasts unlike other media. Radio can touch a cord with its audience with its human interest stories in order to promote human values and to protect ethical reporting.

15) No Literacy Barrier

    Radio has no literacy barrier. Radio talks in the language of the audience and hence connects better with an individual. Radio's availability to work at community levels,

helps broadcast programmes that speak the language of the community thus becoming a media of the masses.

4.3 OBJECTIVES OF RADIO

Radio has a long list of objectives out of which, few key objectives are noted below. These objectives are similar to the set of objectives laid down for All India Radio. AIR however strives to stand by all the objectives of radio.

1) To bridge the gap between rich and poor

   AIR caters its services to all sections of people at cost-effective methods so as to bridge the gap between rich and poor. Also, programmes are broadcast keeping in mind all sections of audience so that radio doesn't just belong to the elite class like it had been during colonial days.

2) To reflect national integrity and patriotism

   AIR promotes national identity through its featured programmes on nationalism and patriotism. Patriotic songs and sermons by eminent government officials continue to be the spotlight on AIR. Through these programmes AIR promotes national integrity among its audience. AIR never broadcasts programmes that speak ill of the nation or tend to create disturbance in national identity.

3) To strengthen scientific temper

   Pandit Jawaharlal Nehru, the first prime minister of India, emphasizes on the need for radio's role in strengthening scientific temper among all sections of people. Radio abides by his recommendations and continuously broadcasts programmes that tend to promote scientific awareness among its audience. Radio channels like GnyanVani broadcast programmes on scientific inventions and new trends in science.

4) To popularize environmental problems

   Environmental issues are one concern that is mostly ignored by other forms of media like television and print. Radio takes up the task of popularizing environmental issues among people by relentlessly broadcasting programmes about climate change, bio-diversity, need for environmental awareness and steps to counter environmental hazards.

5) To protect cultural heritage

   Culture is the treasure of any country and for a culturally diverse country like India, culture is a treasure trove to be protected and promoted vehemently. AIR stands up to the task of protecting and promoting cultural heritage through its programmes on cultural diversity, heritage protection and identity.

6) To highlight need for social welfare, women welfare and child welfare

   Welfare of all is the motto of any government in democracy. AIR continuously broadcasts programmes on welfare of society, women and child welfare to spread awareness about welfare activities in all these vulnerable sections of society.

7) To fulfill health for all

   Health for all is another motto of Indian government. AIR broadcasts health awareness programmes and home remedies for mild ailments to help audience with

less medical reach to minister basic first-aid within their households. Public health systems are also promoted through AIR broadcasts.

8) To encourage sports and games

   Sports and games are a reflection of the country's pride on international platforms. AIR broadcasts and runs commentary on national and international sports and games like Asian Games, Common-Wealth Games, and Cricket World Cup etc.

9) To popularize human values

   Human values and ethics are promoted and popularized by radio through continuous broadcasts that spread awareness about these morals and values.

10) To sensitize family planning and population control

    Family planning is a government policy that was implemented on war-footing during the tenure of Smt. Indira Gandhi. During those years, AIR played a key role in sensitizing people about population control and family planning. Though family planning, now, became a norm of life, there are many sections of the society that still need awareness about family planning and population control. AIR broadcasts programmes on awareness about population control to cater to the needs of these vulnerable sections.

11) To sensitize farmers about new technology

    Agriculture is a continuously evolving field with new trends always entering to ease the process of farming. AIR runs farm and home programmes and Kisan Vikas programmes to sensitize farmers about these new techniques in farming.

12) To popularize "Swatcch Bharat"

    Swatcch Bharat is a sanitation campaign initiated by Narendra Modi, the current Prime Minister of India, in the year 2014 with an aim to see a clean India by 2019. AIR plays a key role in promoting this Swatcchatha mission among people.

13) To recognize youth and their needs

    Youth are the backbone of a country's development. AIR recognizes the needs of youth and tries to cater to their through its programmes on skill development, general awareness, career guidance and employment opportunities.

4.4 SUMMARY

Radio is a significant media for mass communication. Radio's relevance continues to grow unhindered in the age of digitalization owing to its characteristics and objectives. All India Radio is the face of broadcasting in India. It is a national public broadcaster for India and has been working as a most trusted source of news in the country since its inception. All India Radio abides by a code of conduct which helps it maintain authentic, credible and balanced reporting of news and broadcasting programmes that are relevant to all sections of its audience. All India Radio and its Code of Conduct are discussed in next lesson.

4.5 GLOSSARY

- **Amatuer Radio:** Amateur radio, also known as ham radio, is the use of radio frequency spectrum for purposes of non-commercial exchange of messages, wireless experimentation, self-training, private recreation, radiosport, contesting, and emergency communication.
- **Emergency Communication:** An emergency communication system (ECS) is any system (typically computer-based) that is organized for the primary purpose of supporting one-way and two-way communication of emergency information between both individuals and groups of individuals.
- **Community Radio:** Community radio usually is a short-range, not-for-profit radio station or channel that caters for the information needs of people living in a particular locality, in the languages and formats that are most adapted to the local context.

4.6 SELF-ASSESSMENT QUESTIONS

1) What are the objectives of radio? How is AIR maintaining these objectives?
2) What are the characteristics of radio? How do you think these characteristics promote radio as an important means of mass communication?
3) How do you think radio is different from other forms of media?
4) Is radio relevant in 21st century? If yes, then how? If no, then why?

4.7 SUGGESTED READINGS

1) Harrison, M. (1938). *Radio in the Classroom: Objectives, Principles, and Practices.* United States: Prentice-Hall, Incorporated.
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LESSON-5

ALL INDIA RADIO

OBJECTIVES

After reading this lesson, the reader should be able to understand key details about All India Radio and the code that abides it.

Key objectives of this lesson are:

- To detail the inception and early years of AIR
- To describe the vision, mission and role played by AIR in society building
- To analyse the broadcasting model of AIR
- To analyse AIR code and how AIR abides by it.

STRUCTURE

5.1 INTRODUCTION

All India Radio (AIR), officially known since 1957 as Akashvani ("Voice from the Sky"), is the national public radio broadcaster of India and is a division of Prasar Bharati. It was established in 1936. It is the sister service of Prasar Bharati's Doordarshan, an Indian television broadcaster. Headquartered in the Akashvani Bhavan building in New Delhi, it houses the Drama Section, the FM Section, the National Service, and is also home to the Indian television station Doordarshan Kendra. This lesson notes the early years of AIR and the code by which AIR abides.

5.2 ALL INDIA RADIO

On June 8, 1936, the Indian State Broadcasting Service became All India Radio. The Central News Organisation (CNO) came into existence in August, 1937. In the same year, AIR came under the Department of Communications and four years later came under the Department of Information and Broadcasting. When India attained independence, there were six radio stations in India, at Delhi, Bombay, Calcutta, Madras, Tiruchirapalli and Lucknow. There were three in Pakistan (Peshawar, Lahore and Dacca). AIR then had a coverage of just 2.5 % of the area and 11% of the population. The following year, CNO was split up into two divisions, the News Services Division (NSD) and the External Services Division (ESD). In 1956 the name AKASHVANI was adopted for the National Broadcaster. The Vividh Bharati Service was launched in 1957 with popular film music as its main component.

The phenomenal growth achieved by All India Radio has made it one of the largest media organisations in the world. With a network of 262 radio stations, AIR today is accessible to almost the entire population of the country and nearly 92% of the total area. A broadcasting giant, AIR today broadcasts in 23 languages and 146 dialects catering to a vast spectrum of socio-economically and culturally diverse populace.

Programmes of the External Services Division are broadcast in 11 Indian and 16 foreign languages reaching out to more than 100 countries. These external broadcasts aim to keep the overseas listeners informed about developments in the country and provide a rich fare of entertainment as well.

The News Services Division, of All India Radio broadcasts 647 bulletins daily for a total duration of nearly 56 hours in about 90 Languages/Dialects in Home, Regional, External and DTH Services. 314 news headlines on hourly basis are also being mounted on FM mode from 41 AIR Stations. 44 Regional News Units originate 469 daily news bulletins in 75 languages.

In addition to the daily news bulletins, the News Services Division also mounts number of news-based programmes on topical subjects from Delhi and its Regional News Units.

AIR operates at present 18 FM stereo channels, called AIR FM Rainbow, targeting the urban audience in a refreshing style of presentation. Four more FM channels called, AIR FM Gold, broadcast composite news and entertainment programmes from Delhi, Kolkata, Chennai and Mumbai. With the FM wave sweeping the country, AIR is augmenting its Medium Wave transmission with additional FM transmitters at Regional stations.

In keeping with the Government decision for transition to the digital mode of transmission, AIR is switching from analog to digital in a phased manner. The technology adopted is the Digital Radio Mondiale or DRM. With the target of complete digitization by 2017, the listeners can look forward to highly enhanced transmission quality in the near future.

5.3 VISION OF AIR

Being a National Public Service Broadcaster, AIR is committed to empower all types of the masses/ citizens by disseminating information and programme on education and entertainment by having strong electronic Radio broadcast media using state of the art technology"

5.4 MISSION OF AIR

1) To uphold and strengthen unity, national integrity, democratic and secular values and communal harmony by informing, educating, and entertaining people at large.
2) To develop powerful electronic wireless communication medium to disseminate messages and information uniformly to reach all people of the country (Bahujan Hitaya Bahujan Sukhaya) and also abroad (in large PIO countries) in minimum time.
3) To broadcast timely, updated, objective, comprehensive and balanced news in unbiased manner and coverage of major events, and changes in socio-economic development and life style of national and international importance.
4) To achieve international standards in Radio broadcast programme content and signal quality.
5) To encourage international co-operation and global harmony.
6) To promote research and development.

5.5 IMPORTANCE OF AIR

As per Mahatma Gandhi, AIR has a miraculous power to stimulate and empower the large masses and excite them for taking immediate suitable action towards the national development process.

All lndia Radio has a leading role as a national public service broadcaster.

1) It is an important electronic medium, with maximum reach and conveying information/messages through various human development programme to the large masses in most cost effective manner.
2) It is the fastest means of mass communication as it takes least time from coverage, production to the transmission and reception. It is best suited to the music, talk, news and other audio programme including the data and text transmission.
3) It is least complicated, least expensive, most convenient and very friendly to the customers/ clients. Radio sets are the cheapest and most cost effective media than any other media.
4) AIR specially helps and provides maximum motivation to the aggrieved, blind, aged, poor, illiterate, backward, downtrodden, sick people, villagers, vulnerable sections of societies, solitary people, destitute, etc. It plays a crucial rote during disaster, war and crises

5.6 THREE-TIER BROADCASTING SYSTEM

AIR has a three-tier system of broadcasting. These three levels of programmes are the National, Regional and Local each having distinct audiences.

5.6.1 National Broadcasts

National programmes are broadcast from Delhi for relay by the Capital, Regional and Local Radio Stations. Some of these are the National Programme of Talks and Features in Hindi and English, the National Programmes of Drama and Music.

The National Channel of All India Radio located in Delhi broadcasted programmes which were heard on Medium Wave and also on Short Wave. Started on 18th May 1988, this channel worked as a night service from 6.50 PM to 6.10 AM the next morning. Broadcasting in Hindi, Urdu and English, the programme composition of the channel had been designed to make it representative of the cultural mosaic and ethos of the country. It has been closed on January, 2019

5.6.2 Regional Broadcasts

The Regional Stations in different States form the middle tier of broadcasting. They originate programmes in the regional languages and dialects. Regional Channels are located in the major linguistic-cultural region of every state. 116 Regional Channels are spread over 29 states & 6 Union Territories including the North-Eastern Service at Shillong that projects the vibrant cultural heritage of the North-Eastern region of this country. The Regional Channels, broadcast largely on the Medium Wave frequency, follow a composite programme pattern comprising of music - classical, light, folk and film, News and Current Affairs, Radio plays, features, Farm and Home programmes, programmes on Health & Family Welfare and programmes for Woman, Children etc.

5.6.3 Local Broadcasts

Local Radio is relatively a newer concept of broadcasting in India. Local radio stations serve small communities, showcase local culture and broadcast area specific programmes for the benefit of the community. The transmission is in the FM mode. The programming is flexible and spontaneous and the stations function as the mouth piece of the local community. At present there are 86 Local Stations spread across the country.

5.7 AIR CODE

Broadcast on All India Radio by individuals will not permit:

1. Criticism of friendly countries;
2. Attack on religions or communities;
3. Anything obscene or defamatory;
4. Incitement to violence or anything against maintenance of law & order
5. Anything amounting to contempt of court;
6. Aspersions against the integrity of the President, Governors and the Judiciary.
7. Attack on a political party by name;
8. Hostile criticism of any State or the Center;
9. Anything showing disrespect to the Constitution or advocating change in the Constitution by violence; but advocating changes in a constitutional way should not be debarred.

10. Appeal for funds except for the Prime Minister's National Relief Fund, at a time of External Emergency or if the Country is faced with a natural calamity such a floods, earthquake or cyclone.

11. Direct publicity for or on behalf of an individual or organization which is likely to benefit only that individual or organization.

12. Trade names in broadcasts which amount to advertising directly (except in Commercial Services).

Note:

a) The code applies to criticism in the nature of personal tirade either of a friendly Government or of political party or of the Central Government or any State Government. But it does not debar reference to and/or dispassionate discussion of policies pursued by any of them.
b) If a Station Director finds that the above Code has not been respected in any particular by an intending broadcaster he will draw the latter's attention to the passage objected to. If the intending broadcaster refuses to accept the Station Director's suggestions and modify his accordingly, the Station Director will be justified in refusing his or her broadcast.
c) Cases of unresolved differences of opinion between a Minister of State Government and the Station Director about the interpretation of the Code with regard to a talk to be broadcast by the former will be referred to the Minister of Information and Broadcasting, Government of India who will decide finally whether or not any change in the text of the talk is necessary in order to avoid violation of the Code.

5.7.1 Code of Conduct for Television/Radio Broadcasts in Connection with Elections

The Election Commission (EC) recognises the significance of television and radio in the coverage of elections. Their reach is widespread and impact substantial. On the one hand, the electronic media can be misused to favour one party or another. But on the other hand, the EC recognises that electronic media can, if used properly be an important source of information for voters across the country. It can provide the widest first hand education for voters on political parties, their symbols, various leaders and different issues in the election. This is why electronic media all over the world is the single biggest source of information of voters in terms of debates, campaign, coverage etc.

It is essential therefore that a model code of conduct is established for electronic media both to ensure that it is not misused as well as to ensure that it be used in the best interest of democracy and the voter.

Listed below are the Dos and Don'ts for election coverage on electronic media.

a. There should be no coverage of any election speeches or other material that incites violence, against one religion, against one language, against one group etc.
b. In any constituency, only one candidate should not be projected. While it is not necessary to cover every single candidate (as some constituencies may have several candidates), at least the more important candidates should be covered in any reports from a constituency.
c. The following could be covered in a balanced and fair manner:-
    i. Campaigning and excerpts from campaign speeches.
    ii. Symbols, banners, flags and other campaign materials of parties.
    iii. Results of opinion polls by non-political, professional organisations with a proven track record.
    iv. Party manifestoes (critical analysis of which is also perfectly legitimate.)
    v. Candidates and their views in different constituencies across the country.
    vi. The positions taken by the main parties on different issues important to the electorate.
    vii. Debates between major parties and candidates.
    viii. Analysis of previous voting patterns, victory margins, swings etc.
d) By ˜balanced and fair" it is meant that among the major political parties:-
    i. No political parties should be given substantially more coverage than others. The balance need not be achieved in any single day or in a single story, but over a reasonable period of time, say one week.
    ii. Balance does not mean each party must get exactly the same air time to the last second, but parties should be given broadly the same amount of time.
    iii. Balance implies that to no reasonable person should it appear that one political party is being projected to the exclusion of others.
e) Procedures:
    i. All producers must record a copy of their programme off air for use as reference in case of any disputes.
    ii. The EC shall be the final arbiter in any dispute.

f) The final interpretation of any disputed passage or story should be with

The Election Commission .In Case of disagreement with the broadcaster, one authority could be nominated by the Election Commission who could take a decision immediately when approached.

g) Opinion/Gallop Polls are not to be published/broadcast during the period 48hrs before each phase of polling till the completion of the phase of polling.

h) Exit poll results are not to be published/broadcast before the completion of each phase of polling

5.8 SUMMARY

All India Radio is a national public broadcaster of India working under Prasar Bharati, an autonomous body for media broadcasts in the country. AIR plays a key role in acting as a bridge between government and citizens. With its wide coverage and guided content, AIR caters to various needs of the population and to different sections of the society alike. Milestones of All India Radio and its growth in the country are discussed in next lesson.

5.9 GLOSSARY

- **DTH:** Direct-to-home; In India, direct-to-home (DTH) Broadcasting Service refers to the distribution of multi-channel TV programmes by using a satellite system by providing TV signals direct to subscribers' premises.
- **Analog:** Relating to or using signals or information represented by a continuously variable physical quantity such as spatial position, voltage, etc.
- **Digital:** expressed as series of the digits 0 and 1, typically represented by values of a physical quantity such as voltage or magnetic polarization.
- **Digital Radio Mondiale:** DRM is a set of digital audio broadcasting technologies designed to work over the bands currently used for analogue radio broadcasting including AM broadcasting, particularly shortwave, and FM broadcasting.

5.10 SELF-ASSESSMENT QUESTIONS

1) Describe the three-tier broadcasting system of AIR. Why do you think AIR works on three different tiers in India?
2) Explain the importance of AIR and the need for AIR to continue broadcasting in the country.
3) Why should there be a code of conduct for AIR? List out the AIR code of conduct.
4) What kind of broadcasts should AIR avoid and why?

5.11 SUGGESTED READINGS

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2) Baruah, U. L. (2017). *This is All India Radio.* New Delhi: Publications Division Ministry of Information & Broadcasting.

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LESSON- 6

SPECIAL AUDIENCE PROGRAMMES ON RADIO

OBJECTIVES

After reading this lesson, the reader should be able to understand all about special audience programmes run by All India Radio and a brief understanding of impact of radio on society through case studies of Mann ki Baat.

Key objectives of this lesson are:

- To discuss various special audience programmes aired on All India Radio
- To impart an understanding of the impact of radio on society
- To analyse the need for special audience programmes on radio

STRUCTURE

6.1 INTRODUCTION

All India Radio is known for its diversity and inclusiveness policy. Its content is always diverse while trying to include all sections of audience in its broadcasts. Apart from news, music and talk shows, AIR broadcasts various special programmes to cater to the needs of vulnerable sections like agriculture, health, gender, environment, hygiene and sanitation. This lesson discusses few special audience programmes aired on All India Radio. Detailed analysis is done on PM Narendra Modi's Mann ki Baat for a better understanding of the impact of radio on its audience and society at large.

6.2 SPECIAL AUDIENCE PROGRAMMES ON AIR

Few notable special audience programmes on AIR are listed below.

6.2.1 Farm and Home Unit

Farm & Home section of the Directorate General of All India Radio guides, monitors and supervises the programming activities for rural listeners specially designed to cater to the day to day seasonal needs of the farming community in Hindi and different regional languages/dialects from more than 188 Radio stations across the country.

The Farm & Home cell at the headquarters issues instructions to stations from time to time for specific programme content generation and publicity campaigns based on inputs from various ministries and departments. The programmes planned and scheduled at the stations are tracked, expenses in respect of centrally monitored scheme Kisanvani scrutinised and guidelines issued to the stations concerned.

The Action Taken Reports on the advisories received from the stations are processed at the Directorate and forwarded to the concerned ministries. In view of the fast changing requirements of the farm sector, the Farm & Home Cell also evolves training modules and workshops for its programmers in collaboration with the Ministry of Agriculture.

Farm and Home programmes are broadcast by all stations of AIR. Programmes are designed based on the local day to day needs of the farming community incorporating latest information and technology for best agricultural output. These programmes create awareness about the ways & means to improve the agricultural productivity and quality of the country's farming community. The programmes are broadcast daily in the morning, noon and evening with average duration of 60 to 100 Minutes per day for Rural Women, Children & Youth. The Farm & Home units of AIR broadcast composite programmes including equal segments of rural development scheme and hard-core agriculture programmes like animal husbandry,

fisheries, dryland and wasteland agriculture and also on segments dwelling on employment schemes, loan and training facilities, sanitation, health hygiene and nutrition etc.

6.2.2 Workshops

AIR has expanded its Agriculture Broadcasts with the launch of an exclusive project on Mass Media support to Agriculture Extension entitled 'Kisanvani' from Feb. 2004, in collaboration with the Department of Agriculture & Cooperation, Ministry Of Agriculture, to keep local farmers informed about the daily market rates weather reports and day to day information in their respective areas at micro level. Presently Kisanvani is being broadcast and relayed from identified 96 AIR stations across the country.

In the current fiscal(2011-2012) Directorate General: All India Radio has also conducted six Appraisal and Refresher workshops for its Kisanvani programme producers in collaboration with Department of Agriculture and Cooperation, Ministry of Agriculture. The workshops were successfully conducetd at Guwahati, Chennai, Ahmedabad, Bhubneshwar, Palampur, and Patna to improve upon the programme quality and content.

6.2.3 Radio Kisan Diwas

AII India Radio observes 15th February as Radio Kisan Diwas over all its stations by mounting special programmes on the occasion. Farmers, who are benefited by the information disseminated through agricultural programmes on AIR, share their experiences with other fellow farmers in their regional language/dialect.

6.2.4 Environment

In view of its importance, wildlife and forest conservation is treated by AIR as a challenge and emphasis is given on development activities as well as social rituals. All India Radio projects the success of governmental initiatives, which take place in forestry, wildlife conservation and ecological balance. World day to combat desertification is also observed by AIR stations every year to create awareness about land degradation and desertification.

All the AIR stations are giving wide publicity to the legal factors concerning environment and forestry. These programmes are monitored regularly by the Directorate, through monthly statements sent by AIR stations.

6.2.5 Health & Family Welfare

Health & family welfare programmes are regular broadcasts of All India Radio. All regional and Local Radio Stations produce and broadcast these programmes in their respective

regional languages.Subjects covered in these programmes are based on the raise in marriage age delay the first child, space between two children, terminal methods, maternal care, child survival, promotion of inter-spouse communication/male responsibility, neutralizing male preference syndrome, medical terminal of pregnancy, management of reproductive tract infections (RTIs) and sexually transmitted infections (STIs), Pre-Natal Diagnostic Techniques (Regulation and Prevention of Misuse) Act- 1994, AIDS, drug abuse, breast feeding, child right, girl child, adverse child sex ratio and to alter the Negative mindsets leading to abortion of Girl Child foetus, Pre- Conception & Pre- Natal Diagnostic Techniques act and the penalties contained therein to create public opinion against violation of its provisions, disability, T.B., leprosy and reproductive child health etc.

Health campaigns on immunization, Polio, blood Thalesimia eye donation are publicised widely in these programmes. Regular programmes are mounted against Drug abuse, tobacco consumption, illicit trafficking, AIDS etc. and to create awareness about the Rehabilitation and facilities being provided to the leprosy affected persons/ families and campaigns based on articles 8, 9, 21, 27 &30 of the UNCRPD to raise social awareness on the issues of persons with disabilities .

All National International Days on Health and Family Welfare issues are observed by all AIR stations by mounting special informative programmes.

6.2.6 Children Programmes

Children programmes are broadcast from all Regional and Local Radio Stations of AIR on weekly basis in their respective regional languages. These programmes are designated for age group 5-7 years and 8-14 years. Special programmes for rural children are also broadcast from AIR stations. Plays, short stories, features, choral singing, interviews, stories from epics etc are part of these broadcasts. Children's Day is celebrated on November 14th as Baal Diwas with special children activities, stage shows and invited audience programmes.

Programmes are planned keeping in mind the following action points:

1) Protection of Rights of children
2) Care and Support to disabled Children and child labour, children under difficult circumstances.
3) Equal status of girls.
4) Universal access to basic education to children and more attention to girls' education.
5) Providing safe and supportive environment to children.

6) Improvement in the economic condition of family and self-reliant society.
7) National and International cooperation for better future of the child.
8) Safe drinking water facility and sanitary means of excreta disposal.

6.2.7 Women Programmes

Women programme of All India Radio covers subjects related to socio- economic development of women, health & family welfare, Food and nutrition,scientific home management, women entrepreneurship, education including adult education, women empowerment, gender issues etc. Special programmes focusing on the status and importance of the girl child are broadcast throughout the year to create social awareness to welcome the girl child's birth .These programmes also aim at creating social awareness about the rights and privileges of women through the propagation of legal literacy.Different traditional folk forms are used to communicate with the rural women audience

Problems Confronting Women, viz:

1) Atrocities on women
2) Trafficking of women
3) Female foeticide and infanticide
4) Obscene portrayal of women
5) Education & Employment opportunities
6) Security for women
7) Maternity benefits, creche etc. for working women
8) Equal wage for equal work
9) Ban child labour
10) Gender discrimination are some of the issues discussed in the programme.

International Women's Day is observed with special programmes by all AIR stations.

6.2.8 Swasth Bharat

The Ministry of Health & Family Welfare, Government of India has signed a MOU with Prasar Bharati for broadcast of a half an hour Health Magazine programme for five days a week over 29 stations of All India Radio. The programme has been launched on 7th of April, 2012 on the occasion of World Health Day. The main aim of the campaign is to inform and educate the listeners on health issues through the terrestrial reach of Prasar Bharati. A workshop was held in Delhi on 6th March, 2012 to brief the producers regarding the content and format of the programme. The workshop was inaugurated by the Hon'ble Health Minister

Shri Ghulam Nabi Azad. The Ministry has prepared a list of the experts available in each state, who will participate in these programmes over various issues involved with the health of the people.

6.3 MANN KI BAAT CASE STUDIES

Mann ki Baat is an All India Radio programme hosted by Prime Minister Narendra Modi in which he addresses the people of the nation on All India Radio, DD National and DD News. Mann ki Baat began in the year 2014 and is still continuing at a successful pace. Mann ki Baat brought immense changed in various sections of society thus once again reflecting the impact of radio on its audience. Two case studies are discussed here to understand the impact of Mann ki Baat on society.

6.3.1 Mann Ki Baat' impact on Mizoram's Khawlailung village

In Mizoram, Khawlailung village has earned a name for robust sugarcane cultivation. 80-year old sugarcane farming practice by the villagers has resulted in the production of tasty jaggery too.

In 2015, former Lok Sabha MP CL Ruala had taken initiatives to make Khawlailung a model village. Also in 2015, Prime Minister Narendra Modi in his 'Mann Ki Baat' Program lauded the efforts of the village community in making it a model village.

Khawlailung village with a population of only 520 families in Serchhip district has set an instance of success in sugarcane cultivation.

After PM Modi in his 'Mann Ki Baat' Program in 2015 took the name of this successful village, a positive impact has swayed the village.

The community and all farmers got inspired by PM Modi's words of appreciation that they have been tirelessly working towards making it a model village. The government is also helping farmers in different ways, that ensured increased production every year.

The agriculture department has provided machineries at a subsidised rate for juicing sugarcane to 22 families. The farmers are now producing and marketing tasty jaggery too.

Talking to AIR, Village Council President, VCP Thangbawiha said:

Tranion- Since becoming a model village, we have constructed a market shed. It has generated income for the village council. The village has become an exam centre for High School Leaving Certificate.

Mizoram Rural bank has set up its branch here. Also, more than 30 Self Help groups are being set up, and a computer learning centre has been set up by NIELIT which imparts free training.)

Local people said they are now keenly desiring for Indian Institute of Sugarcane Research to help set up a sugarcane processing unit. Last 2 years, the villagers organized Kurtai or Jaggery Festival, the first of its kind in Mizoram, to celebrate the bumper harvest of sugarcane.

6.3.2 PM's Mann-ki-Baat helps Kargil to revive regional language 'Purgi'

Mann-ki-Baat programme has been a great initiative by Prime Minister Narendra Modi to share his views with the people of the country. It has had a special impact in Kargil by helping to revive the dying regional language of Purgi, a dialect of Tibetan spoken in western Ladakh.

All India Radio Kargil is a Purgi language station. Most programmes that are recorded and broadcast from AIR Kargil are in Purgi. It was on the verge of extinction in Kargil some decades back as most people had started using Urdu for everyday conversations. This changed in 1997 when All India Radio Kargil was established. The efforts to revive Purgi got further impetus in 2008 when AIR Kargil started broadcasting two five-minute bulletins in Purgi.

The efforts for the revival of Purgi got further encouragement with Prime Minister Modi's Maan-ki-Baat broadcasts. Secretary of Purgi Literary Society, Mohammad Issa Sabiri explained that after the Prime Minister started his Mann-ki-Baat broadcast, AIR Kargil decided to broadcast a regional version of each episode.

6.4 SUMMARY

Radio is a highly influential mass media. It has direct influence on its audience and when used for public good, radio can help bring drastic reforms in a society. All India Radio takes social responsibility as its key objective and schedules its programmes in order to cater to the needs of various sections of the society. Agriculture, environment, gender, child welfare, health and sanitation are some of the core areas where All India Radio broadcasts special programmes. Based on its content, audience and their requirements, AIR broadcasts are divided into AM and FM transmissions. In next lesson we shall discuss about Amplitude Modulation and Frequency Modulation transmissions and their respective applications in broadcasting.

6.5 GLOSSARY

- **UNCRPD:** The United Nations Convention on the Rights of Persons with Disabilities (UNCRPD) is an international treaty which identifies the rights of disabled people as well as the obligations on Parliament and the NI Assembly to promote, protect and ensure those rights.
- **Female Foeticide:** Female foeticide is the practice of aborting a foetus when a person finds out that the foetus is female after undergoing a sex determination test known as prenatal diagnostic tests.

6.6 SELF-ASSESSMENT QUESTIONS

1) Discuss the need for special audience programmes on radio.
2) Write about any five special audience programmes aired on All India Radio.
3) What kind of programmes are run by AIR on agriculture?
4) Discuss why AIR broadcasts programmes for women welfare.
5) Discuss the objectives of children's programmes broadcasted by AIR.
6) Write about one case study of Mann ki Baat's impact on society.

6.7 SUGGESTED READINGS

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LESSON- 7
RADIO PRODUCTION

OBJECTIVES

After reading this lesson, the reader should be able to understand radio production formats, techniques, production equipment and studio operations.

Key objectives of this lesson are:

- To discuss various radio production formats
- To impart an understanding of equipment used in radio programme production.
- To analyse various radio programmes and their production techniques.

STRUCTURE

7.1 Introduction

Radio production is a fascinating subject that deals with production formats, methods, equipment and techniques in broadcasting. Radio production is a major course that deals with all forms of broadcasting methods. In this lesson we briefly discuss about radio formats and equipment used in radio production.

7.2 RADIO PRODUCTION FORMATS

Many radio programmes are live. Some programmes on radio are recorded first and broadcast later. Some programmes are studio based, while others are recorded on outside locations.

7.2.1 Live or Recorded Radio Programmes

The programmes on radio and television can be live, pre-recorded or a combination of both. The nature of production calls for whether a programme will be produced live or recorded in advance and used later.

Live production involves the risk of production errors, as there are no "second chances". It has to be right the first time, which is the only time. However, live production is cheaper than recorded production techniques and sometimes easier and quicker.

Recorded productions allow supervision and control over quality. In this method, first recording of programmes is done. Editing and postproduction are done at a later time. This is an attempt at enhancement to further refine production value and quality while shooting. This can also combine with live production method. Portions or segments of programme can be recorded, edited and processed in advance and incorporated into a studio production using live talent.

7.2.2 Studio or Remote

Programmes can he produced within the controlled environment of an indoor studio which offers the required settings of a programme. Studio settings offer personnel control, light control, temperature control, sufficient power supply and access to supplementary production personnel, equipment accessories and spare parts and even telephones and change rooms.

Production can also be done at a temporary remote location. A unique setting can be achieved by thoughtful selection, planning and full use of a remote outside location. The realism and detail required for the quality and success of a production can also be obtained. However, in such a situation some production requirements, such as extensive lighting or elaborate sets are eliminated.

A combination of studio and remote production is also possible. Most newscasts combine anchors in the studio with reporters in the field. The anchor introduces a story from the studio and the reporter provides the details from the field.

7.2.3 Other Production Formats

Audio production can be carried out in many ways depending on the types and source of programmes. Local live production employs station's own announcers or newscasters locally and play records and tapes, which they themselves own. Live-assist production is one way where stations retain local announcers and disc jockeys as the backbone of the programme and uses syndicated programming, such as reels of taped (pre-recorded) music and satellite delivered music services.

In semi automation production a local radio station relies on the services of the syndicated programme producer. The music is typically played on large tape machines. When a break point for a programme announcement is reached, smaller cartridge tape machines are triggered to play by a sub audible cue tone on the master tape.

Turnkey automation refers to fully automated radio stations, which consists largely of a satellite dish and a control board. The satellite disk downlinks radio programmes. The services may also be localized such that new information is telephoned to the programme producer in time for the announcers many miles away to prepare the inserts.

7.3 EQUIPMENT FOR RADIO PROGRAMME PRODUCTION

The basic equipment to produce audio programme include the following:

1) The studio desk (mixer console or control board or control panel)
2) Microphones
3) Turntable
4) Compact Discs and Records
5) Audiotapes
6) Music and Sound effects

7.3.1 The Console

The control board or console processes the sounds and voices during recording, editing, and dubbing. This mixes together the various programme sources to form the broadcast output.

This is located in the central control point or control room. Three types of circuit functions are operated.

1) Programme circuits:

A series of channels, their individual volume levels controlled by separate rotary faders.

2) Monitoring circuits:

Visual (meter) and aural (headphone) means of measuring the individual sources or channels as well as the final mixed output.

3) Control circuits:

Provision of communication with studio or outside by means of “talk back" or telephone line.

7.3.2 Microphone

A microphone converts acoustic energy into electrical energy. Several types of microphones are available with audio pickup pattern characteristics designed to meet various recording requirements and situations. The directional property of microphones, which is also called the pickup pattern, is important for selecting the right kind of microphone.

According to the pickup patterns, microphones can be classified as:

1) Unidirectional microphones
    a) Unidirectional microphones are appropriate for one or two people speaking side by side.
    b) Background noise is undesirable.
    c) These are also called cardioid mics because of their heart shaped pick-up pattern.
2) Bi-directional Microphones

    Bi-directional microphones are used when two people are directly facing each other.

3) Omni-directional microphones

    Omni-directional microphones are used for picking up a large number of people and are excellent for gathering background noise.

Stereo recording requires specially designed stereo microphones. It can also be achieved by using at least two microphones. One such approach is M-S (mid-side) miking. A tat-directional microphone picks up sound to the left and right and a super cardioid microphone picks up sound to the front. The output of both microphones is fed through a complicated circuit. X-Y miking is another method of stereo recording. Two cardioid microphones are placed next to each other. One angles to the left at a 45-degree angle and other to the right at 45 degree. This way both the microphones pick up sound from the center.

7.3.3 Turntable

A turntable picks up information recorded on a disc or record and sends this information to the console for amplification, mixing, processing, and integration with other sound elements.

7.3.4 Compact Discs and Records

Vinyl records or LPs are being replaced by high quality digital recordings made on compact disc. In playing a disc, most control desks have a "pre-fade", "pre-hear" or "audition" facility which enables the operator to listen to the track and adjust its volume before setting it up to play on the air. With a record, a glance at the grooves will often be sufficient to indicate whether there is a wide variation in dynamic range.

7.3.5 Audiotape

Sounds can be recorded in the field or in the studio onto audiotape at standard speeds. The audiotape used in studio may be in the form of continuous loop cartridges, or carts, or materials may be recorded on reel-to-reel audiotape machines. Digital Audio Tapes (DAT) record the signal in digital form in which the original electrical variations are represented by a series of pulses or bits of information.

7.3.6 Music and Sound Effects

Music and sound effects may be produced and recorded in CD or audio tape and may also be pre-recorded on disc or audio tape and integrated into the programme material using the console or control board.

7.4 DIFFERENT RADIO PROGRAMMES

7.4.1 News and Sports

Newscasts and sportscasts represent a station or network's largest daily commitment of time, effort, personnel and facilities.

Several steps are followed to develop news stories.

1) The idea for a story is suggested by a reporter,
2) The idea in evaluated
3) The logistics governing the story are identified and finalized.
4) The story is produced into finished form.

The process of writing and structuring the first version of story should include the following:

1) Reading the source material carefully and thoughtfully. What is newsworthy? What is the essence of the story? What impact it might have on the audience?
2) Highlighting the main points on the original source material
3) Tell the story informally to a friend or a fellow newsroom reporter
4) Determine how the story can best be told.
5) Write the first draft.
6) Arrange the structure, lead, sentence pattern, ending, etc.,
7) Check your copy against the original source.
8) Revise the copy

7.4.2 Documentaries and Features

A documentary presents, facts, based on documentary evidence about a relevant subject from real events, persons or places to reflect, interrelate, creatively‘ interpret or comment on current concerns and realities. The feature programme on the other hand need not be wholly true in the factual sense. It may include folk song, poetry & fictional drama to help illustrate its theme.

Reality is the basic requirement for a documentary.

Documentaries may be classified as information, interpretation or persuasion according to the ultimate objective.

Some suggestions are given for the production of documentaries.

1) Prepare as detailed an advance script as possible.
2) Divide programme elements into those that are under your control and those that are not
3) Write narration involving the audience.

4) Provide narration that sounds natural and conversational.
5) Avoid long lists, unnecessary statistics, complex terms and jargons and hackneyed expressions.
6) Make narration clear, precise, and easy to understand.
7) Do not inundate the programme with too much narration.
8) Do not use narration when a sound will communicate the information or mood more meaningfully.

7.4.3 Talk Programmes (Interviews)

The general programme category of public affairs includes the talk programmes, interviews, newspaper programmes, and discussions. When regular broadcasting began in the 1920s, among the first types of programmes to appear on radio networks were those of featured interviews. The aim of an interview is to provide facts, reasons, and opinions in a particular topic in the interviewee's own words, so that the listener can form a conclusion as to the validity of what the interviewee is saying.

Electronic media interviews are done under a variety of circumstances - live or recorded and edited for later use, in the studio, on the telephone, or on a remote location in the field. Interviews can be divided into three types the information interview, the opinion interview, and the personality interview.

Whatever is the type of interview; the following methods of approaching the task can be used.

1) The style of the interview.
2) The wishes and comfort of the guest.
3) The time available for preparation.
4) The nature of the topic.
5) The interview policies of the station - some prefer the spontaneous, unrehearsed method while other prefers more structural and predictable interview situation

7.5 SUMMARY

Radio production involves live, recorded, studio, remote and other forms of broadcasting formats. Equipment like console, microphone, turntable, and audiotape are used in radio production. Different forms of broadcasting have respective kinds of writing involved.

Based on its content, audience and their requirements, AIR broadcasts are divided into AM and FM transmissions. In next lesson we shall discuss about Amplitude Modulation and Frequency Modulation transmissions and their respective applications in broadcasting.

7.6 GLOSSARY

- **Production**: The process of or management involved in making a film, play, or record.
- **Microphone**: An instrument for converting sound waves into electrical energy variations which may then be amplified, transmitted, or recorded.
- **Console**: A panel or unit accommodating a set of controls for electronic or mechanical equipment.
- **Turntable**: A circular revolving plate supporting a record as it is played.
- **Audiotape**: magnetic tape on which sound can be recorded.

7.7 SELF-ASSESSMENT QUESTIONS

1) What are the major radio production formats? Explain them in detail.
2) Mention important equipment used in radio production. Do you know any other minor equipment used in broadcasting?
3) Describe few radio programmes and explain the form of writing involved in each format.

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LESSON- 8

AMPLITUDE MODULATION (AM)

AND

FREQUENCY MODULATION (FM)

OBJECTIVES

After reading this lesson, the reader should be able to understand the key features of amplitude modulation and frequency modulation and their applications in broadcasting.

Key objectives of this lesson are:

- To impart an understanding of the difference between AM and FM in radio broadcasting.
- To explain the concept of amplitude modulation in detail
- To explain the concept of frequency modulation in detail
- To discuss the application of amplitude modulation in day-to-day life
- To discuss the application of frequency modulation in day-to-day life.

STRUCTURE

8.1 INTRODUCTION

Radio broadcasting uses two types of transmission methods. They are amplitude modulation and frequency modulation. There are different applications for amplitude modulation transmissions and frequency modulation transmissions in the field of broadcasting. Also there are other applications for these transmission methods. In this lesson, we discuss all about AM and FM transmissions in radio broadcasting and how different methods are used for different purposes.

8.2 AMPLITUDE MODULATION

Amplitude modulation (AM) is a modulation technique used in electronic communication, most commonly for transmitting messages with a radio carrier wave. In amplitude modulation, the amplitude (signal strength) of the carrier wave is varied in proportion to that of the message signal, such as an audio signal. This technique contrasts with angle modulation, in which either the frequency of the carrier wave is varied as in frequency modulation, or its phase, as in phase modulation.

AM was the earliest modulation method used for transmitting audio in radio broadcasting. It was developed during the first quarter of the 20th century beginning with Roberto Landell de Moura and Reginald Fessenden's radiotelephone experiments in 1900. This original form of AM is sometimes called double-sideband amplitude modulation (DSBAM), because the standard method produces sidebands on either side of the carrier frequency. Single-sideband modulation uses bandpass filters to eliminate one of the sidebands and possibly the carrier signal, which improves the ratio of message power to total transmission power, reduces power handling requirements of line repeaters, and permits better bandwidth utilization of the transmission medium.

AM remains in use in many forms of communication in addition to AM broadcasting: shortwave radio, amateur radio, two-way radios, VHF aircraft radio, citizens band radio, and in computer modems in the form of QAM.

Although AM was used in a few crude experiments in multiplex telegraph and telephone transmission in the late 1800s, the practical development of amplitude modulation is synonymous with the development between 1900 and 1920 of "radiotelephone" transmission, that is, the effort to send sound (audio) by radio waves. The first radio transmitters, called spark gap transmitters, transmitted information by wireless telegraphy, using different length pulses of carrier wave to spell out text messages in Morse code. They couldn't transmit audio

because the carrier consisted of strings of damped waves, pulses of radio waves that declined to zero, that sounded like a buzz in receivers. In effect they were already amplitude modulated.

8.2.1 Applications of AM

Amplitude modulation is used in a variety of applications. Even though it is not as widely used as it was in previous years in its basic format it can nevertheless still be found.

1) Broadcast transmissions:

   AM is still widely used for broadcasting on the long, medium and short wave bands. It is simple to demodulate and this means that radio receivers capable of demodulating amplitude modulation are cheap and simple to manufacture. Nevertheless many people are moving to high quality forms of transmission like frequency modulation, FM or digital transmissions.
2) Air band radio:

   VHF transmissions for many airborne applications still use AM. . It is used for ground to air radio communications as well as two way radio links for ground staff as well.
3) Single sideband:

   Amplitude modulation in the form of single sideband is still used for HF radio links. Using a lower bandwidth and providing more effective use of the transmitted power this form of modulation is still used for many point to point HF links.
4) Quadrature amplitude modulation:

   AM is widely used for the transmission of data in everything from short range wireless links such as Wi-Fi to cellular telecommunications and much more. Effectively it is formed by having two carriers 90° out of phase.

These form some of the main uses of amplitude modulation. However in its basic form, this form of modulation is being used less as a result of its inefficient use of both spectrum and power.

AM has advantages of simplicity, but it is not the most efficient mode to use, both in terms of the amount of space or spectrum it takes up, and the way in which it uses the power that is transmitted. This is the reason why it is not widely used these days both for broadcasting and for two way radio communication.

Even the long, medium and short wave broadcasts will ultimately change because of the fact that amplitude modulation, AM, is subject to much higher levels of noise than are other modes.

For the moment, its simplicity, and its widespread usage, mean that it will be difficult to change quickly, and it will be in use for many years to come.

8.3 FREQUENCY MODULATION

Frequency modulation (FM) is the encoding of information in a carrier wave by varying the instantaneous frequency of the wave. The technology is used in telecommunications, radio broadcasting, signal processing, and computing.

In analog frequency modulation, such as radio broadcasting, of an audio signal representing voice or music, the instantaneous frequency deviation, i.e. the difference between the frequency of the carrier and its centre frequency, has a functional relation to the modulating signal amplitude.

Digital data can be encoded and transmitted with a type of frequency modulation known as frequency-shift keying (FSK), in which the instantaneous frequency of the carrier is shifted among a set of frequencies. The frequencies may represent digits, such as 0 and 1. FSK is widely used in computer modems, such as fax modems, telephone caller ID systems, garage door openers, and other low frequency transmissions.

Frequency modulation is widely used for FM radio broadcasting. It is also used in telemetry, radar, seismic prospecting, and monitoring newborns for seizures via EEG,[3] two-way radio systems, sound synthesis, magnetic tape-recording systems and some video-transmission systems. In radio transmission, an advantage of frequency modulation is that it has a larger signal-to-noise ratio and therefore rejects radio frequency interference better than an equal power amplitude modulation (AM) signal. For this reason, most music is broadcast over FM radio.

Frequency modulation and phase modulation are the two complementary principal methods of angle modulation; phase modulation is often used as an intermediate step to achieve frequency modulation. These methods contrast with amplitude modulation, in which the amplitude of the carrier wave varies, while the frequency and phase remain constant.

8.3.1 Advantages of frequency modulation, FM:

1) Resilience to noise:

   One particular advantage of frequency modulation is its resilience to signal level variations. The modulation is carried only as variations in frequency. This means that any signal level variations will not affect the audio output, provided that the signal does not fall to a level where the receiver cannot cope. As a result this makes FM ideal for mobile radio communication applications including more general two-way radio communication or portable applications where signal levels are likely to vary

considerably. The other advantage of FM is its resilience to noise and interference. It is for this reason that FM is used for high quality broadcast transmissions.

2) Easy to apply modulation at a low power stage of the transmitter:

   Another advantage of frequency modulation is associated with the transmitters. It is possible to apply the modulation to a low power stage of the transmitter, and it is not necessary to use a linear form of amplification to increase the power level of the signal to its final value.

3) It is possible to use efficient RF amplifiers with frequency modulated signals:

   It is possible to use non-linear RF amplifiers to amplify FM signals in a transmitter and these are more efficient than the linear ones required for signals with any amplitude variations (e.g. AM and SSB). This means that for a given power output, less battery power is required and this makes the use of FM more viable for portable two-way radio applications.

8.3.2 Disadvantages of frequency modulation, FM:

FM has poorer spectral efficiency than some other modulation formats: Some phase modulation and quadrature amplitude modulation formats have a higher spectral efficiency for data transmission than frequency shift keying, a form of frequency modulation. As a result, most data transmission system use PSK and QAM.

1) Requires more complicated demodulator:

   One of the minor disadvantages of frequency modulation is that the demodulator is a little more complicated, and hence slightly more expensive than the very simple diode detectors used for AM. However this is much less of an issue these days because many radio integrated circuits incorporate a built in frequency demodulator.

2) Some other modes have higher data spectral efficiency:

   Some phase modulation and quadrature amplitude modulation formats have a higher spectral efficiency for data transmission that frequency shift keying, a form of frequency modulation. As a result, most data transmission system use PSK and QAM.

3) Sidebands extend to infinity either side:

   The sidebands for an FM transmission theoretically extend out to infinity. They are normally significant for wideband frequency modulation transmissions, although small for narrow band FM. To limit the bandwidth of the transmission, filters are

often used, and these introduce some distortion of the signal. Normally this is not too much of an issue although care has to be taken to include these filters for wideband FM and to ensure they are properly designed.

8.4 SUMMARY

Amplitude modulation is different from frequency modulation based on the parameter used to modulate the carrier wave in correspondence to the message signal wave. Amplitude modulation is used in news transmissions and land-to-air communications. Frequency modulation is used in commercial broadcasts owing to its high quality audio output in comparison to AM output. Stages in programme production are discussed in next lesson to enable the reader to get an idea of the entire process of programme production.

8.5 GLOSSARY

- **Carrier Wave:** a high-frequency electromagnetic wave modulated in amplitude or frequency to convey a signal.
- **Signal Wave:** A wave whose characteristics permit some intelligence, message, or effect to be conveyed. Also known as signal.
- **High Frequency:** High frequency (HF) is the ITU designation for the range of radio frequency electromagnetic waves (radio waves) between 3 and 30 megahertz (MHz). The HF band is a major part of the shortwave band of frequencies, so communication at these frequencies is often called shortwave radio.
- **VHF**: Very High Frequency, conventionally defined portion of the electromagnetic spectrum including any radiation with a wavelength between 1 and 10 metres and a frequency between 300 and 30 megahertz. VHF signals are widely employed for television and radio transmissions.

8.6 SELF-ASSESSMENT QUESTIONS

1) What do you understand by the term Amplified Modulation?
2) Mention few applications of AM transmission.
3) What do you understand by the term Frequency Modulation?
4) What are the advantages and disadvantages of FM transmission?
5) In what formats of broadcasting are AM and FM used?

8.7 SUGGESTED READINGS

1) Camies, B. S. (1959). *Principles of Frequency Modulation: Applications in Radio Transmitters and Receivers, and Radar.* United Kingdom: J.F. Rider.

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LESSON- 9

STAGES IN PROGRAMME PRODUCTION

OBJECTIVES

After reading this lesson, the reader should be able to understand basics of programme production for radio.

Key objectives of this lesson are:

- To impart an understanding of the three classifications of radio programme production.
- To discuss in detail the stages of programme production for radio
- To explain the need and necessity for feedback in programme production.

STRUCTURE

9.1 INTRODUCTION

Behind every word that goes on air, there is a huge process of programme production. Every programme on radio goes through these stages of production in order to ensure smooth running of a radio station. Radio productions can be majorly divided into three broad spheres.

They are:

1) Pre-production
2) Production
3) Post-production

These stages are commonly used in all kinds of media productions like television and film. The stages within these broad spheres change with respect to the media concerned. In this lesson, we shall discuss about the three major classifications in programme production and an in-depth study of stages of radio programme production.

9.2 STEPS IN PROGRAMME PRODUCTION

9.2.1 Pre-Production

This is the planning and development stage. This begins with the generation of a script. Unless a script is developed it is difficult and there will be confusion on what type of programme you are producing. The script contains instructions and guidelines for the production of the programme.

9.2.2 Production

The second stage is production. The entire material for the programme is recorded or organized at this stage. Selecting and positioning of the microphones, the type of tapes to be used, and selection at various sources at sound through the mixer are all part of this stage. Recording takes place in this stage.

9.2.3 Post Production

This stage generally includes editing. Sounds recorded during production and dubbing if required, are the principal focus of post-production. Putting together the previously recorded sound and selection of sound are important.

The purpose of editing can be summarized as:

1) To arrange recorded material into a more logical sequence
2) To remove the uninteresting. Repetitive or technically acceptable portion.
3) To compress the material in time.
4) For creative effect to produce new juxtaposition of speech, music, sound and even silence.

9.3 STAGES IN RADIO PROGRAMME PRODUCTION

Radio programme production goes through lots of carefully planned and structured stages. We shall discuss the stages of production as well as how AIR maintains these stages.

9.3.1 Feedback Analysis

Any programme production process begins with feedback. This stage is also known as research stage. Just like any business establishment begins with market research, any programme production begins with audience research. All India Radio has an Audience Research Unit that meets every once in while discuss feedback. Also there are advisory committees to analyse audience feedback in order to suggest possible programmes for broadcast.

Feedback lets an organisation understand what the audience truly require. Also, feedback of earlier programmes helps understand what kind of programmes to broadcast and if there are any errors to rectify in the production process.

Feedback collection in All India Radio is done using three methods.

1) Pay for reply cards sent by AIR to audience

   AIR sends pay-for-reply cards to audience to send their feedback on the cards. Through this method, AIR encourages a habit to write to radio about its programmes among its audience. Also, this method encourages audience to carefully go through a programme in order to be able to write back efficiently to the research wing.
2) Audience write to AIR

   AIR also encourage audience to freely write to its research wing. Pay-for-reply cards use a random sampling method and hence not all radio's audience receive these cards.

Hence, AIR continuously requests its audience to write their feedback in order to give scope for transparency in feedback analysis.

3) Surveys done by AIR

AIR frequently conducts surveys to collect feedback from its audience. The advantage of surveys lies in not just reaching out to AIR's audience but also to non-listeners of radio. Based on these surveys, radio can create new programmes that might attend to the needs of these non-listeners.

9.3.2 Topic Selection

Topic selection is the next step in programme production. Topics are selected based on feedback analysis. Various audience groups are kept in mind while taking a decision in topic selection. Advisory committee of AIR sits together to select topics. Topic selection is a crucial stage and most often considered to be the first stage in programme production in all forms of media. Topic selection decides the merit of a content and acts a pathway to the entire programme production.

9.3.3 Format Selection

Format selection is the next stage in programme production.

Some of the prominent programme formats for radio are:

1) Interviews
2) Drama
3) News
4) Panel discussions and
5) Documentary

Formats are selected based on target audience and topic selected. The entire programme production depends on format selection.

9.3.4 Talent Selection

Talent selection comes after format selection. Based on the format selected, it is decided whether the programme requires a narrator or a performer or a news reader or a talker. Talents are then choses accordingly. Experts in the chosen field like doctors, scientists, musicians, academicians etc. are invited to run the programme. New performers undergo auditions. Sometimes veteran panellists are taken in contract. Sometimes organisations or clubs approach the station directly with proposals of a programme.

Prominent talents required for a radio programme are:

1) Announcer
2) Narrator
3) Actors
4) Dramatists
5) Comparers
6) News Readers

Required qualities from a talent are:

1) Confidence
2) Tension free nature
3) Talkative attitude
4) Natural expression
5) Easy flow
6) Spontaneous decision making
7) Tongue twisting capabilities
8) Control over breathing
9) Linguistic knowledge
10) Awareness on contemporary issues

9.3.5 Contract Signing

Consent between two or more parties is known as contract. A contract is signed between talent and station in order to seal the pact. At AIR, everything should be in black and white. A contract form is sent to talent to ponder on the offer. After the contract is signed, the reply is sent to AIR with confirmation.

9.3.6 Meeting and Briefing

AIR then calls the talent for a brief meeting. It is always necessary to meet and brief in advance about the topic and the script so as to avoid any confusion between either parties. Meeting and briefing is one stage which many productions tend to overlook which may cause them enough reason to worry later.

9.3.7 Script Writing

Script writing follows meeting and briefing. Script writing is known as the heart of the programme. While writing script, one should follow code of conduct. Script should be clear,

concise, and precise and when handwritten, should be written in legible handwriting. Script writing shall be discussed in detail in next lesson.

9.3.8 Post-script Discussion

Post-script discussion again is one crucial stage in programme production. Derogatory or unwanted words are omitted from the script. Necessary items are added after post-script discussion. The script is then condensed to word limit.

9.3.9 Recording

Recording is an ever-evolving field in broadcasting. Once spools were used to record a programme. Later discs are used to record. Then dubbing is done.

9.3.10 Dubbing and Re-recording

Dubbing and re-recording follows recording. Special effects are added in re-recording. Rain, thunder etc. are some of the special effects added to a programme through re-recording.

9.3.11 Cue Sheet Preparation

Name of the programme, theme, date of recording, date of broadcast, remuneration etc. are detailed in cue sheet. Schedule is given in cue sheet. Cue sheet serves as a record to a programme. Also it helps rectify possible chaos between talent and station.

9.3.12 Transmission

There are three transmissions on AIR viz. morning, general and night. “ON AIR” is a term used in All India Radio to mention transmission. High power transmitters and low power transmitters are used for transmission.

9.3.13 Feedback

Feedback about the programme is collected from audience. AIR’s credibility lies in its double end feedback collection. Feedback analysis helps the institution in producing programmes that cater to the needs of all its audience in the format that they desire to listen in.

9.4 SUMMARY

Production happens on three broad spheres in almost all kinds of broadcast media like radio, television and film. The three spheres of programme production are pre-production, production and post-production. The three spheres are further divided into various stages in programme production. In this lesson we discussed stages of radio programme production

and how AIR maintains these stages of production. In the next lesson we shall discuss the ethos of writing for radio.

9.5 GLOSSARY

- **Script:** The written text of a play, film, or broadcast.
- **Talent:** An individual who is On-Air Talent is someone on camera or behind the microphone.
- **Feedback:** Information about reactions to a product, a person's performance of a task, etc. which is used as a basis for improvement.
- **Pay-for-reply Cards:** A pay-for-reply card has had the cost of sending it paid by the person who originally sent it.
- **Dubbing:** Combine (two or more sound recordings) into one composite soundtrack.
- **Re-recording:** Re-recording is the process by which the audio track of a film or video production is created.
- **Spools:** A cylindrical device which has a rim or ridge at each end and an axial hole for a pin or spindle and on which material (such as thread, wire, or tape) is wound

9.6 SELF-ASSESSMENT QUESTIONS

1) What are the three broad classifications of radio production?
2) What are the stages of radio production?
3) What is the difference between pre-production, production and post-production? Explain the stages that come under each classification.
4) Why is feedback important in programme production?

9.7 SUGGESTED READINGS

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LESSON- 10

WRITING FOR RADIO

OBJECTIVES

After reading this lesson, the reader should be able to understand nuances of writing for different radio programmes.

Key objectives of this lesson are:

- To impart an in-depth understanding of sources of news
- To discuss the principles of radio writing
- To analyse few important formats of radio
- To study the ethos of writing for different radio formats

STRUCTURE

10.1 INTRODUCTION

Script writing is called the heart of a programme. Script writing has greater importance in radio broadcasting than television or film production as radio is a hear copy and it is through script that radio attracts its audience. With no visuals to divert the attention of its audience, radio relies a lot on its script to keep its audience hooked. In this lesson we shall discuss script writing for radio and how it differs from one format to another.

10.2 FORMATS OF RADIO PROGRAMMES

Some of the prominent formats of radio programmes are:

1) Radio news

   Daily news is broadcast on AIR as bulletins and news programmes. Radio uses correspondents and many other sources to collect its news.

   Some of the sources of radio news are:

   a) News Agencies – UNI, PTI etc.
   b) News Correspondents appointed through IIS, SSC etc.
   c) Monitoring – Other radio stations
   d) Ministries – I&PR, Information and Broadcasting etc.
   e) Sessions – Parliamentary, Assembly etc.
   f) Judiciary – Supreme Court, high court etc.
   g) Pools – Clubs, amalgamate etc.
   h) Tournaments - National, international etc.
   i) Devotional discourses
   j) Voluntary organisations – NGOs, pressure groups etc.
   k) Public meetings – Press meets, walkathons, open meetings etc.
   l) Cultural associations
   m) Weather offices

2) Interviews

   An interview is an interaction between guest and host. Interview is one more important format on radio. There are four types of interviews.
   They are:

   a) On the spot interview

      Interviews are conducted at a press meet or at the interviewee's place. These kind of interviews are mostly random and unplanned. They are also known as spontaneous interviews. These kind of interviews are mostly recorded.

b) Phone-in interview

Interview takes place over phone. These kind of interviews are taken with executives and officials who may not have time to come to a radio station.

c) Live interview

Live interviews take place in studio within the station. Guest is called to studio and the interview is aired live. This kind of interviews are more transparent and interesting. There is no scope for re-takes or corrections in this format.

d) Scheduled interview

Interviews are scheduled before-hand. These interviews also take place in a studio but they are not live. They are recorded before they are broadcasted. In scheduled interviews there is scope for correction and amendments unlike live interviews.

3) Drama

Drama is an audio programme on radio that is recorded with dialogues, music and sound effects. It is similar to any television drama sans visuals. Drama programmes are followed by majority of audience with keen interest. Drama has entertaining content with a motto to educate and inform using entertainment.

4) Documentary

Documentary is not as serious as news but not as entertaining as drama. Documentaries are real yet reel like. It takes lengthy research to produce a documentary. Series of interviews have to be conducted across various formats to get the required content for a documentary. Documentary has a narrator who narrates the content.

5) Panel Discussions

Panel discussion is a discussion between host and panellists. The host is also known as moderator. Panel discussions have topic selected with very little script written.

6) Radio talks

Radio talks are mostly monologues given by experts in a chosen field. Narrator is chosen accordingly and a topic is given to talk on. Radio talks are educative and spread awareness about topics of interest.

7) Local announcements

Local announcements cannot be called as radio programmes but these announcements also make a part of radio production. They are made about weather, game score in times of international tournaments, important announcements etc.

10.3 WRITING FOR RADIO – OVERVIEW

We know that script is the backbone of production. So writing is an essential part of it. We write what type of sound would be required at a given situation and what would follow. Sound is the entire means of communication in radio. Sounds help create and enhance mental images.

Sounds have the unique capability of creating an environment for the listener. Through the creative use of various writing and production techniques, entire worlds can be created in the human mind.

Many techniques are availed to create an environment with sound.

10.3.1 Language

The primary goal of language is to communicate ideas and information to be easily understood. The selection and using words and the combining of words into meaningful sentences are important for good production.

10.3.2 Words

Words are the primary tools for the expression or thoughts, ideas, and emotions, regardless of the medium. Words have meaning and power. Words need to be selected carefully. Use words that come close to reality. Informal, rather than formal words are preferred.

10.3.3 Sentences

Sentences are the principal units of organised thought. The keys to construct effective sentences are clarity, simplicity, conversational style and conciseness.

10.4 PRINCIPLES OF WRITING FOR RADIO

Independent of the format used, radio writing has a set of principles to follow. These principles also relate to radio news writing. Hence these principles can also be termed as principles for radio news writing.

1) Short Sentences

   Radio writing always calls for short sentences because it is a “hear” copy. Short sentences enable a narrator or a news reader to comfortably read a sentence. Also, short sentences enable a listener to comfortably follow a statement. Conjunction should be mostly avoided in radio writing.
   For example, a sentence like: “While it is always advisable to wear a helmet while driving a two wheeler, one should always keep in mind that one should not wear a broken helmet or a foggy helmet in order to avoid greater risk of accident”, cannot be followed by a radio listener.
   For radio, this sentence can be broken as follows.
   “Wear a helmet while driving a two wheeler. Do not wear a broken helmet or foggy helmet. It may lead to accident.”
   This sentence is much easier for a narrator to read and for a listener to absorb the content.

2) Word Limits

   Time, on radio, matters more than words or space. Radio generally goes by a formula of 90-100 words / minute. That means a typical reader can be able to read 90 to 100 words in one minute. Radio scripts are written accordingly in order to avoid re-takes while recording. Word limit should always be considered while writing a radio script.

3) Simple and familiar words

   Simple and familiar words should be used because listeners do not sit with a dictionary while listening to a radio. Simple words attract more attention than complex words. Also familiarity with the words used keeps the audience hooked for longer period.
   For example, “I met a bibliophile who subsists on mere journals and papyrus” is tend to scare away a listener or make them feel bored.
   A better way of saying the same sentence is: “I met a book-worm who lives on mere books”.

4) Avoid hard-core news

   Hard-core news again is monotonous and lagging for radio. Radio hence gives news in bulletins and brief reports.

5) Brief presentation

   Presentation on radio is mostly brief. No programme lasts more than half an hour or an hour in some cases. Presentations do not drag beyond their time limit.

6) Reduce monotony

   On radio, script writers should always look to reduce as much monotony as possible. Content should be gripping and attractive not laggard and boring.

7) If need be, rewrite

   Rewriting is one principle that many script writers find difficult to follow. But rewriting helps a script writer in enhancing their scripts further. It is always suggestible to rewrite as many times as necessary.

8) Sharp headlines

   Headlines on radio should be gripping because it is headlines that hook a listener to radio. Special care should be taken while writing headlines.

9) Connect words

   Connect words are to be used to make the content more attractive. Connect words keep the listeners enthused by the programme.

10) Emphasising weather reports

    Reports like weather reports need to be emphasised to catch the attention of a not-so-attentive listener. Also there might be technical noise in radio. In order to cope with this issues, important announcements like weather reports need to be emphasised.

11) Make middle announcements

    Middle announcements are made about important updates like, missing people, train arrivals, market prices etc.

12) Repeat headlines

Headlines should be repeated for those who might have missed the beginning of the programme. Headline repetition copes with noise on radio be it technical or semantic.

13) Maintain order till end

Script writing should be in an order and one should not deviate from the prescribed order throughout the script.

10.5 PROGRAMME FORMAT OF RADIO PROGRAMMES

Different programmes on radio have different formats in production. While basic principles of radio writing remains the same, these formats determine the method to follow while writing a script to respective formats. Programme format is a step-by-step programme production of each format.

10.5.1 Radio News

Radio news is of four major types. They are:

1) Full Length News
2) Short Length News
3) Regional / State News
4) National News

Steps in radio news production

1) Station identification
2) News reader identification
3) Headlines
4) News in detail – Half I
5) Middle announcements
6) News in detail – Half II
7) Repeat Headlines
8) Concluding Announcements

10.5.2 Interview

Interview is conducted between host and guest. It is a dialogue where an expert in a chosen field is taken as guest. Lots of homework is done in planning an interview.

Stages in planning an Interview

1) Choosing the audience – Feedback analysis
2) Choosing the guest

3) Preparation of questionnaire
4) Introduction to guest and subject
5) No deviations from subject
6) No one-word answers or questions
7) Follow chronological order
8) Give narrative conclusion
9) Repeat the central idea
10) Offer thanks

Step by step format of interview is as follows.

1) Station identification
2) Introduction to programme
3) Introducing the guest and subject
4) Question and answers
5) Concluding remarks
6) Offering thanks
7) Closing announcements

10.5.3 Panel Discussion

Panel discussion is a group discussion between a moderator and panellists. There are usually one moderator and three to four panellists. Experts in a chosen field are invited as panellists to discuss on a specific issue.

Step-by-step format of panel discussion:

1) Station Identification
2) Programme Announcement
3) Panel Discussion
4) Concluding Remarks
5) Offering Thanks
6) Closing Announcement

10.5.4 Feature or Documentary

Drama, feature, documentary have a completely different script and programme guidelines to follow. They are part of an advanced course in broadcast writing. All these formats mostly have a narrator who runs the entire programme.

10.5.5 Radio Talk

Talks are given by experts in a selected field. The talker is given a topic to choose from and then after briefing and meeting and script discussion, the talk is recorded.

Step-by-step format of radio talks:

1) Station identification
2) Talker introduction
3) Talk
    a. Introduction to topic
    b. Middle argument
    c. Counter argument
    d. Good conclusion
4) Offering thanks
5) Concluding announcements

10.6 SUMMARY

Script writing is the heart of a radio production. There are various formats of radio programmes and writing for each format differs from the other. Script writing for radio, however, has a set of principles to follow irrespective of the format chosen. Radio, being a sound medium, script has an important role to play in radio production. Different formats of radio have different steps in to follow in script writing and content preparation. In next lesson we shall discuss about commercial broadcasting in All India Radio and how it brought in new formats of radio programme production.

10.7 GLOSSARY

- **News Agencies:** An organization that collects news items and distributes them to newspapers or broadcasters.
- **Media Monitoring:** Media monitoring is the activity of monitoring the output of the print, online and broadcast media
- **Documentary:** A film or television or radio programme that provides a factual report on a particular subject.
- **Radio Drama:** Radio drama is a dramatized, purely acoustic performance. With no visual component, radio drama depends on dialogue, music and sound effects to help the listener imagine the characters and story.

- **Radio Feature:** A feature covers a topic in depth from one or more perspectives, often featuring interviews, commentary, and sound pictures.

10.8 SELF-ASSESSMENT QUESTIONS

1) Describe the principles of writing for a radio broadcast.
2) Choose any one radio format and write a programme script for the format.
3) What are the major formats in radio production?
4) Why is script writing known as heart of radio production? What are the important guidelines in writing radio news?

10.9 SUGGESTED READINGS

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5) McInerney, V. (2001). *Writing for Radio.* United Kingdom: Manchester University Press.

LESSON- 11

COMMERCIAL BROADCASTING IN ALL INDIA RADIO

OBJECTIVES

After reading this lesson, the reader should be able to understand the origin, growth and current status of commercial broadcasting in All India Radio.

Key objectives of this lesson are:

- To impart an understanding of the need for commercial broadcasting in radio.
- To discuss the origin and growth of commercial broadcasting in AIR.
- To analyse various commercial broadcasting services under AIR
- To discuss about Non-lapsable fund of AIR and how to impacts AIR's survival.

STRUCTURE

11.1 INTRODUCTION

Broadcasting in India, after AIR became a public broadcaster had been non-commercial and service oriented. However, need for static revenue and similar requirements called for an initiation of commercial broadcasting in AIR. With the revenue generated through commercial broadcasting, AIR takes forward its service activities as a public broadcaster. In this lesson we shall discuss all about commercial broadcasting, how AIR decided to enter commercial broadcasting, what happens with the revenue generated through commercial broadcasting, what is meant by an NLP and how AIR utilizes it for public broadcasting and what are the services aired under commercial broadcasting by AIR.

11.2 COMMERCIAL BROADCASTING – OVERVIEW

Commercial broadcasting (also called private broadcasting) is the broadcasting of television programs and radio programming by privately owned corporate media, as opposed to state sponsorship.

Commercial broadcasting is primarily based on the practice of airing radio advertisements and television advertisements for profit. This is in contrast to public broadcasting, which receives government subsidies and usually does not have paid advertising interrupting the show. During pledge drives, some public broadcasters will interrupt shows to ask for donations.

Radio broadcasting originally began without paid commercials. As time went on, however, advertisements seemed less objectionable to both the public and government regulators and became more common. While commercial broadcasting was unexpected in radio, in television it was planned due to commercial radio's success. Television began with commercial sponsorship and later transformed to paid commercial time.

11.3 CHANDA COMMITTEE

In 1974, a committee was setup to review the status of broadcasting and media in the country under the chairmanship of A.K.Chanda. The expert committee gave the following recommendations.

1) Abolition of license fee
2) Starting a commercial broadcasting
3) Separation of All India Radio and Doordarshan ‘
4) Opening a non-lapsable fund account.

Based on the recommendations made by Chanda committee AIR started commercial broadcasting in India. Also, a non-lapsable fund has been opened to meet AIR's needs with the revenue generated through commercial broadcasting. AIR also separated from DD based the recommendations made by Chanda committee.

11.4 COMMERCIAL BROADCASTING IN AIR

AIR started commercial broadcasting in a very limited way on the 1st of November, 1967 when the Bombay Centre of Commercial Service was inaugurated. Under this project, advertisements were broadcast simultaneously from the low-power medium-wave Vividh Bharati Transmitters at Bombay, Pune and Nagpur for about 10% of the total Vividh Bharati Transmission period i.e. 75 minutes per day.

For the purpose of selling time CBS stations were delinked in 1981 into 15 main and 14 linked stations. In addition to CSU, the 15 main CBS stations can book in respect of sports and sponsored programmes to any extent in close cooperation with the Central Sales Unit. 2.1.35. The work relating to Commercial Broadcasting is performed in two wings i.e., Sales and Unit for looking after Sales Work. The Director of Sales with headquarters at Bombay is the Head of this Production. A separate independent office has been created from 1.10.1968 known as the Central Sales Unit.

11.5 NON-LAPSABLE FUND

To deposit the money that AIR earns through commercial broadcasting, non-lapsable fund has been initiated in 1975. Both from All India Radio and Doordarshan revenue is regularly deposited into non-lapsable fund for which the government has given 10crores as initial deposit.

11.5.1 Objectives of Non-Lapsable Fund

1) Improving software facilities of AIR and Doordarshan
2) Improving hardware facilities of All India Radio and Doordarshan.
3) Experimenting new programmes
4) Remuneration to artists
5) Financing FTII for training internal staff
6) Financing IIMC for training internal employees

11.5.2 Akashvani and Doordarshan Commercial Revenue Non-Lapsable Fund

In order to enable Akashvani and Doordarshan to improve the programmes broadcast from the two Organisations and, to provide adequate financial resources to these two organisations, Government have decided to constitute a Non-Lapsable Fund Called "The Akashvani and Doordarshan (Commercial Service Revenue) Non-Lapsable Fund (NLF)". This fund is formed out of the revenue derived by Government through the Commercial Services of Akashvani and Doordarshan from the 1st day of April, 1975, reduced by the commission paid to advertising agencies and discount paid to advertisers.

The software Plan Schemes financed by NLF aim at providing important broadcast services to various segments of our society. Particular emphasis is laid on assisting the vast rural listeners with upto-date information on modern techniques of agriculture, village and small-scale industries, health, hygiene and family welfare through Farm and Home broadcasts. Maximum support is provided to universalize primary education and promote non-functional education through educational broadcast programmes. Efforts is made to build scientific temper in the country by trying to eradicate superstitions and exploding myths and by projecting scientific progress as a means to build better standards of life. Another aim to these schemes is to disseminate news in regional languages for information of the people about the multifaceted economics and social development in urban as well as remote rural areas, helping a large number of listeners to have better awareness of the methods and means to improve their lot.

Apart from bringing sports, youth programmes and children's overall development in focus, the objective of these schemes is to enrich cultural aspect of life of the people by streamlining and improving orchestral and light music, encouraging group singing by arranging public performances of choral groups and making it possible for stations to book young talented music artists from other zones.

11.6 VIVIDH BHARATI SERVICE

The Vividh Bharati Service (VBS) of All India Radio was conceptualized to combat Radio Ceylon in 1957. Vividh Bharati radio channel was launched on 3 October 1957.

All these programmes are produced centrally at Vividh Bharati Service, Borivali, Mumbai and up-linked to the satellite. 40 Vividh Bharati stations across the country down-link these programmes through captive earth stations provided at each of these AIR stations. Some local programme windows are also provided at these stations to give regional flavour to the

listeners. These 40 Vividh Bharati stations are known as Commercial Broadcasting Service Stations and are located at major cities covering 97% of the Indian population.

Commercials were introduced initially in the Vividh Bharati Service in 1967 on an experimental basis. Realising the role of advertising in accelerating the social and material progress of the country, commercials were extended to primary channels including FM and local radio stations MW 1 KW in a phased manner. Advertising on radio is not only cost effective to the advertisers but also has the potential to reach rural areas where no other mass media has succeeded in making any tangible dent.

11.7 EXTERNAL SERVICES

The external services of All India Radio are broadcast in 27 languages to countries outside India via high-power shortwave band broadcasts. Medium wave is also used to reach neighbouring countries. In addition to broadcasts targeted at specific countries by language, there is a General Overseas Service broadcasting in English with 8¼ hours of programming each day aimed at a general international audience. The external broadcasts were begun on 1 October 1939 by the British government to counter the propaganda of the Nazis directed at the Afghan people. The first broadcasts were in Pushto, beamed to Afghanistan and the North-West Frontier Province. Broadcasts soon began in other languages including: Dari, Persian, Arabic, English, Burmese, Japanese, Chinese, Malay and French. The external services broadcast in 16 foreign and 11 Indian languages, with a total program output of 70¼ hours per day on medium and shortwave frequencies.

Two high powered FM stations of All India Radio are being installed in Amritsar and Fazilka in the Punjab to supplement the programs broadcast from transmitters operating from Jalandhar, New Delhi, Chandigarh and Mumbai and to improve the broadcast services during unfavourable weather conditions in the border regions of Punjab.

Today, the External Services Division of All India Radio broadcasts daily with 57 transmissions with almost 72 hours or programming covering over 108 countries in 27 languages, of which 15 are foreign and 12 Indian. The foreign languages are: Arabic, Baluchi, Burmese, Chinese, Dari, French, Indonesian, Persian, Pushtu, Russian, Sinhala, Swahili, Thai, Tibetan and English (General Overseas Service). The Indian languages are Bengali, Gujarati, Marathi, Konkani, Kashmiri, Hindi, Kannada, Malayalam, Nepali, Punjabi, Saraiki, Sindhi, Tamil, Telugu and Urdu.

The longest daily broadcast is the Urdu Service to Pakistan, around the clock on DTH (direct-broadcast satellite) and on short- and medium wave for 12¼ hrs. The English-language General Overseas Service is broadcast 8¼ hours daily. During Hajj, there are special broadcasts beamed to Saudi Arabia in Urdu. AIR is planning to produce programmes in the Baluchi language.

The external services of AIR are also broadcast to Europe in DRM (Digital Radio Mondiale) on 9950 kHz between 1745 and 2230 UTC. These external transmissions are broadcast by high-power transmitters located at Aligarh, Bengaluru, Chennai, Delhi, Gorakhpur, Guwahati, Mumbai and Panaji on shortwave and from Jalandhar, Kolkata, Nagpur, Rajkot and Tuticorin on medium wave. Soon All India Radio Amritsar will also start a booster service on the FM band. Some of these transmitters are 1000 kW (1 MW) or 500 kW. Programs are beamed to different parts of the world except for the Americas and the reception quality is very good in the target areas. In each language service, the program consists of news, commentary, a press review, talks on matters of general or cultural interest, feature programmes, documentaries and music from India and the target region. Most programs originate at New Broadcasting House on Parliament Street in New Delhi, with a few originating at SPT Bengaluru, Chennai, Hyderabad, Jalandhar, Kolkata, HPT Malad Mumbai, Thiruvananthapuram and Tuticorin.

The External Services Division of AIR is a link between India and rest of the world, especially in countries with Indian emigrants and people of Indian origin. It broadcasts the Indian point of view on matters of national and international importance, and demonstrates the Indian way of life through its programs. QSL cards (which are sought-after by international radio hobbyists) are issued to radio hobbyists by AIR in New Delhi for reception reports of their broadcasts.

11.8 RAINBOW FM

AIR FM Rainbow is a group of FM radio channels across India. The group of stations was previously called FM Metro, but the name was changed to FM Rainbow in 2002. The group is run by All India Radio. It features Hindi and regional language songs, while also playing English music and providing hourly news in English, regional language and/or Hindi. In Bhopal, FM Rainbow broadcasts in Hindi to more than 12 districts of Madhya Pradesh and 21 Bhopal City suburbs. AIR FM Rainbow Delhi airs in as many as ten cities, more than any of the other FM Rainbow frequencies.

Rainbow stations are widely accessible due not only to their strong FM signals that carry transmissions to numerous villages in addition to urban areas, but also to FM Rainbow's commitment to providing diverse programming. Rainbow FM stations plays ghazals, soundtracks, and a variety of programs featuring Western music, both popular music and classical music. Some such programs are "Time Out," "Take Off," "Footloose," and "Wicked Hour." FM Rainbow's variety of programming is unique for an Indian radio station, yet almost all the disc jockeys (locally known as "radio jockeys," or RJs) on private Indian FM stations got their start at FM Rainbow. Programming is provided on a rotating schedule, accessible from the All India Radio website, along with the frequencies available in different regions. FM Rainbow channels are also available to tune in from Prasar Bharati DTH channels across the country for listeners outside the bandwidth.

AIR launched the FM Rainbow channel on 01.02.1993. This was a channel to cater primarily to the young listener on the move. The Radio Jockey (RJ) replaced the Announcer. The presentation style became fast-paced and informal to suit the changing listener profile. The vibrant programming and quality reception caught the imagination of the youngsters and allured them to come closer to their radio. In its round the clock broadcast, radio listeners were served with a varied menu of new formats of entertainment.

At present AIR has 206 FM transmitters across the country, by which it covers 24.94% of the area and 36.81% of the population of the country. FM Rainbow is originated from 17 centers, at Delhi, Mumbai, Chennai, Kolkata, Bangalore-Kannada Kamanabilu, Lucknow, Panaji, Jalandhar, Cuttack, Kodaikanal, Tiruchirapalli, Coimbatore, Vishakhapatnam, Puducherry, Vijayawada, Goa and Tirunelveli. AIR Delhi Rainbow is relayed fully from Mussorie, Kanpur, Aligarh, Kasauli, Kurseong, Leh, Aurangabad, Kochi, Cherrapunji and Shillong and partly from Hyderabad, Bhadrava, Poonch, Rajauri, Naushera, RK Srinagar, RK Jammu, Jhansi, Dharamshala, and Bhatinda. The programming of FM Rainbow includes Pop music, Film songs, Classical & Devotional music, News Headlines, informal chat shows, phone-in programmes etc. AIR FM Rainbow commands an impressive listening and holds its own among private FM Channels.

The News Services Division is putting out news headlines on FM ‘Rainbow’ channel from Delhi from 28 May 1995. Twenty four news headline bulletins on FM ‘Rainbow’ are broadcast round-the-clock from Delhi. The duration of each headline FM ‘Rainbow’ bulletin from Delhi is one minute approx. At present 22 AIR stations are broadcasting FM Headlines.

11.9 AIR FM GOLD

AIR FM Gold is a FM radio channel in Mumbai, Delhi, Kolkata and Chennai, India. It is run by the All India Radio. In Mumbai, it features Hindi songs, and English songs along with hourly news in English and Hindi. It operates on 100.1 in Mumbai and on 100.1 Megahertz in Delhi. It was started on 15 August 2001 by the then Minister of Information & Broadcasting.

Late Indivar Sacdeva, Rajiv Saxena and Naveen K. Gupta were some of the broadcasters who were involved with devising the channel's content and presentation style when it was started in September 2001. At that time this channel was just called FM-2.Later on Danish Iqbal and Vijay Deepak Chhiber were Programme Executives of this channel.FM-1 was the previous channel which is now known as FM Rainbow. Anil Baijal, then CEO of Prasar Bharti wanted to call this as FM Classic but FM-2 name became popular by default. The inaugural show was hosted by Sujata Rath, Senior Announcer. Programmes like Gaate Gungunate, Arpan and Dopaher FM were part of the initial repertoire. Another notable feature of the early days was the daily broadcast of Helpline series where various kinds of counselling was provided involving notable experts of different fields. In those days this Channel used to be of 18 hours only. Now it is a 24 hours Channel.

FM Rainbow, formerly FM-1, is a metro channel using "Hinglish" which broadcasts a mix of Hindi film music and western pop music. It was initially designed to broadcast only classics of music, drama and literature. Another speciality of that period was the daily Phone-in counselling shows involving educational, psychiatric, legal, marriage, home decor, interior decoration, hobbies like music, painting, photography, dance and many more very innovative subjects. FM Rainbow became very popular among discerning audience within a short time due to its eclectic programming and old Hindi songs. It is the only channel which has News and Current Affairs in its programming. In Chennai, it broadcasts Tamil songs and occasional English songs with news in English and Tamil operating in 102.3 MHz. In Delhi it operates in Hindi playing older songs with news/special reports commentary and its frequency is 106.40 MHz. It also airs live commentary for Indian sports.

The then Information and Broadcasting Minister launched a news and entertainment channel called AIR FM-II (now FM Gold) on 1 September 2001. The channel is on air 24/7. It is a composite blend of information and entertainment with one third of its contents devoted to news and current affairs. Composite news programmes in Hindi and English originating from Delhi are exclusively broadcast every morning, midday and evening for a duration of 30 minutes each. These include 'Samachar Prabhat', 'Dopahar Samachar' in Hindi and 'Breakfast

News' in English in the morning and 'Samachar Sandhya' in Hindi in the evening and 'News at 9' at 9 p.m. . The channel has also some specialized programmes like 'Market Mantra' (Business Magazine) and 'Sports Scan'(Sports related programme). Other news-based programmes mounted on FM Gold include 'Vaad Samvaad' and 'Countrywide' based on interviews with prominent personalities. It also broadcasts news at every hour.

Hourly news headlines are broadcast on FM Gold in Hindi & English alternately, these are 5 min long. Other than this following programmes are broadcast by NSD on FM Gold.

11.10 SUMMARY

Commercial broadcasting in radio brought lots of revenue to radio through which AIR could continue its educational and productive broadcasts to cater to needs of all its audience. AIR FM Gold and Rainbow FM are an instant hit with the youngsters who look for a channel to air music while on the move. Though a part of commercial broadcasting, these channels also give announcements about important updates like traffic diversions, weather changes etc. Commercial broadcasting brought lots of new trends into All India Radio. One of the key changes in radio after introducing commercial broadcasting is the initiation of an autonomous body to monitor AIR broadcasts as well as DD telecasts. This body, known as Prasar Bharati is the link between AIR and DD and has brought innumerable changes into broadcasting. We shall discuss all about Prasar Bharati in next lesson.

11.11 GLOSSARY

- **Non-lapsable Fund:** A non-lapsable fund would mean the unspent amount from capital budget of the ministry will not lapse, and will continue in the next fiscal.
- **Commercial:** Making or intended to make a profit.
- **Hertz (Hz):** The unit of frequency of an EM wave — one cycle per second — is called a Hertz.
- **MHz:** Megahertz
- **Hinglish:** A blend of Hindi and English, in particular a variety of English used by speakers of Hindi, characterized by frequent use of Hindi vocabulary or constructions.

11.12 SELF-ASSESSMENT QUESTIONS

1) What do you understand by the term commercial broadcasting? Why do you think AIR started commercial broadcasting?
2) What are the services aired by All India Radio under commercial broadcasting?

3) What is a non-lapsable fund? What are the objectives of a non-lapsable fund?
4) Give a summary of FM services of All India Radio.

11.13 SUGGESTED READINGS

1) Indrajit Banerjee, K. S. (Ed.). (2006). *Public Service Broadcasting in the Age of Globalization.* Singapore: Asian Media Information and Communication Centre.
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LESSON- 12

PRASAR BHARATI

OBJECTIVES

After reading this lesson, the reader should be able to gain an in-depth understanding of Prasar Bharati.

Key objectives of this lesson are:

- To impart an understanding of the need for initiation of Prasar Bharati.
- To study the objectives of Prasar Bharati board.
- To discuss various wings of Prasar Bharati
- To discuss in detail about National Academy of Broadcasting and Research and Development wing of Prasar Bharati.
- To analyse the functions and powers of Prasar Bharati corporation.

STRUCTURE

12.1 INTRODUCTION

Prasar Bharati is an autonomous body established under Ministry of Information and Broadcasting of India. All India Radio, along with Doordarshan, is manned by Prasar Bharati. Prasar Bharati sets a code of conduct for broadcasts and telecasts and it looks after the rules and regulations of broadcasting in the country. Prasar Bharati has brought in many new trends in broadcasting since its inception. In this lesson we shall discuss in detail about Prasar Bharati as it is the broadcasting regulatory body of the country.

12.2 PRASAR BHARATI – OVERVIEW

Prasar Bharati is the Public Service Broadcaster of the country. It is a statutory autonomous body established under the Prasar Bharati Act and came into existence on 23.11.1997. The largest of its kind, Prasar Bharati comprises of All India Radio and Doordarshan Television Network, which were previously media units of the Ministry of Information and Broadcasting.

12.3 PRASAR BHARATI BOARD

The general superintendence, direction and management of the affairs of Prasar Bharati are vested in the Prasar Bharati Board, which is headed by the Chairman and comprises of, the Executive Member (Chief Executive Officer), the Member (Finance), the Member (Personnel), six Part-time Members, a representative of the Ministry of Information & Broadcasting and the Directors General of All India Radio and Doordarshan as ex-officio Members. The Chairman is a Part Time Member with a three year tenure, subject to the age limit of 70 years. The Chief Executive Officer has a tenure of five years, subject to the age limit of 65 years. Member (Finance) and Member (Personnel) are Whole Time Members with a six year tenure, subject to the age limit of 62 years.

The Prasar Bharati Board meets at least 6 times in a year and the meetings are presided over by the Chairman. The Board delegates powers and responsibilities to the Chief Executive Officer who discharges his functions accordingly.

12.3.1 Objectives

Major objectives of Prasar Bharati Corporation as laid out in the Prasar Bharati Act, 1990, are as follows:

1) To uphold the unity and integrity of the country and the values enshrined in the Constitution.
2) To safeguard the citizen's right to be informed freely, truthfully and objectively on all matters of public interest, national or international, and to present a fair and balanced flow of information including contrasting views without advocating any opinion or ideology of its own.
3) To promote national integration.
4) To pay special attention to the fields of education and spread of literacy, agriculture, rural development, environment, health & family welfare and science & technology.
5) To create awareness about women's issues and take special steps to protect the interests of children, aged and other vulnerable sections of the society.
6) To provide adequate coverage to diverse cultures, sports and games and youth affairs.
7) To promote social justice, safeguarding the rights of working classes, minorities and tribal communities.
8) To promote research and expand broadcasting faculties & development in broadcast technology.

12.4 WINGS OF PRASAR BHARATI

12.4.1 All India Radio

All India Radio is India's Public Service Radio Broadcaster and the Radio vertical of Prasar Bharati. Serving its mandate to inform, educate and entertain its listeners, All India Radio is living up to its motto of 'Bahujan Hitaya: Bahujan Sukhaya'. It is one of the largest broadcasting organisations in the world in terms of number of languages of broadcast and the spectrum of socio-economic and cultural diversity it serves. AIR's home service constitutes of 470 broadcasting centres pan India, which covers nearly 92% of country's area and 99.19% of India's total population. AIR produces programmes in 23 languages and 179 dialects.

12.4.2 Doordarshan

Doordarshan is India's Public Service Television Network and the television vertical of Prasar Bharati. It is one of the largest broadcasting organisations in the world in terms of studios and transmitters. Doordarshan serves its mandate through its three tier programme services – National, Regional and Local. National programmes emphasise on events and issues of interest to the entire nation. These programmes include news, current affairs, magazine programmes and documentaries on science, art, culture, environment, social issues, serials, music, dance, drama and feature films.

12.4.3 DD News

DD News is the only terrestrial cum satellite News Channel of the country. The News Channel of India's Public Service Broadcaster has been successfully discharging its responsibility to give balanced, fair and accurate news without sensationalizing as well as by carrying different shades of opinion. DD-News channel was launched on 3 November 2003 by converting DD-Metro into a 24-hours news channel. Its satellite footprint is available across the country. DD News terrestrial reach is 49% by population and 25% by area of the country. DD News is currently producing news content in Hindi, English, Urdu and Sanskrit languages. Over 17 hours of LIVE transmission include telecast of more than 30 news bulletins in these languages. Besides this 14 Regional News Units of DD News are producing four regional shows in a day which are aired on DD News. The channel also telecast daily three sports bulletins, one business show, daily current affairs programme. Special shows on Health, Youth issues, Cinema, Art & Culture, flagships schemes, communal harmony, employment opportunities, international events, market developments etc are produced in-house by the News Channel. The news channel is also scrolling news round the clock in Hindi & English with stock tickers (BSE/NSE) and commodity tickers. News Wing of DD News is also producing news content for its sister channels i.e. DD National, DD India and DD Urdu. Five bulletins in Hindi/English of 15 mts duration are being produced daily by news wing for DD National Channel. Recently news wing started producing 10 LIVE bulletins and news scrolling for DD Urdu. DD News has 31 functional Regional News Units / Bureaus which are broadcasting over 170 news bulletins in 23 languages/dialects. RNUs besides producing regional news also cater to DD News in Reporting, Visual feeds & Special Programming. DD News is also very active on the social media platforms. Its Twitter handle @DDNewsLive is tweeting news and updates round the clock. The Youtube channel of DD

News youtube.com/DDNewsOfficial is putting out headlines, videos and special programmes for netizens regularly.

12.4.4 AIR News

The News Service Division of All India Radio is the Radio News Network of Prasar Bharati. It strives to provide news and views to every dweller in the country even in remotest areas, 24X7, in all major languages and dialects, while adhering to highest professional ethics and standards in Radio Broadcasting. From 27 news bulletins in 1939-40, AIR today broadcasts 607 bulletins daily in 92 languages/dialects in Home, Regional and External Services.

12.4.5 DD Free Dish

DD Free Dish is Direct to Home (DTH) service of Prasar Bharati for delivering TV service directly through satellite with a personal small dish antenna. It is India's only Free Direct-To-Home Service (no monthly fee). Doordarshan started its DTH service as DD Direct+ in December 2004, which was renamed as DD Free Dish on 27th August 2013. At present, its capacity is 104 SDTV channels along with 40 Radio channels. DD Free Dish has a reach of more than 30 Million households, which is about 15% of the total TV Households in the country.

12.4.6 DTT

Prasar Bharati has introduced Digital Terrestrial Television for the first time in India. Digital Terrestrial Broadcasting will facilitate multiple programme channels through one transmitter, better video-audio quality, availability of signals on mobile and portable devices like handsets, tablets, etc. The existing Analogue TV Transmitters in India serve about 88% of Indian population. Constrained by limited frequency capacity, the Analogue Terrestrial Television platform needed a new & more efficient transmission system to meet the demands of the future and to allow for the launch of new services. India has adopted DVB Standard for its digitalization of terrestrial network. The 2nd generation DVB T2 Standard, launched in June 2008, has about 50% more capacity than its first generation DVB T. The DVB T2 Transmitter has high data capacity (up to 40 Mbps). Digitalization of Doordarshan's Terrestrial TV Transmitters has been started in 63 cities under XI and XII Plan. DVB- T2 Transmitters are equipped for Fixed, Portable and Mobile equipments.

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Why DTT?

Doordarshan is giving terrestrial transmission of Analog Channels since 15th September 1959. DD is migrating to digital terrestrial broadcasting as going digital will provide multiple programme channels from one transmitter, better video and audio quality, availability of signals on mobile and portable devices like handsets/tablets/PCs etc.

Some advantages of DTT Transmission are as below:

1) Analog TV (ATV) is subject to interference, such as ghosting and snow, depending on the distance and geographical location of the TV receiving the signal.
2) DTT Transmission is free from "ghosting" and "snowing", which are commonly found in analogue TV pictures.
3) Digital TV supports Standard Digital TV (SDTV), High Definition TV (HDTV) and Ultra High Definition TV (UHDTV) standards.
4) The DTT signal can also be received on portable and mobile devices including in moving vehicles.

5) The digital transition offers an opportunity to increase the production of local content. This in turn creates job opportunity and increase creativity and entrepreneurship.
6) DTT provides an alternative all weather reliable distribution platform for viewers

12.5 NATIONAL ACADEMY OF BROADCASTING AND MULTIMEDIA

National Academy of Broadcasting and Multimedia, the apex in-house training institution of Prasar Bharati, was established in 1948. Previously known as Staff Training Institute (Technical), NABM primarily caters to the training needs of personnel of All India Radio & Doordarshan. With its headquarters and a comprehensively equipped academy in Delhi, NABM also has three regional academies in Bhubaneshwar (Odisha), Shillong (Meghalaya) & Mumbai (Maharashtra) to cater to the regional training requirements.

12.5.1 Functions of NABM:-

The academy conducts about 120 courses every year and trains around 1,600 engineering personnel. Officials from broadcasting organisations of neighbouring countries are also invited as participants in academy's training programmes.

12.5.2 Primary functions of NABM are:-

To train raw recruits in broadcasting technology.

To upgrade skills of personnel in tune with emerging technologies.

To issue training related guidelines and content

To assist the staff in their career growth

Apart from the primary functions, the academy has the responsibility to carry out the following activities:

1) Conducting Departmental Competitive Examinations
2) Conducting Direct Recruitment Examinations
3) Preparing and updating Technical Manuals
4) Preparing Safety Manuals
5) Preparation of Technical Monographs
6) Publication of Newsletter

12.6 RESEARCH AND DEVELOPMENT WING

Established in April 1937 with the aim:

1) Carry out Propagation Studies for scientific planning of Broadcasting services in India.
2) Investigate problems pertaining to operation, maintenance and development of broadcasting in India.
3) Research and Development.
4) Paving way for Introduction of latest Technology in Indian Broadcasting.

12.6.1 Role of Research and Development

1) To Research & Develop Broadcast equipment for induction in AIR & Doordarshan network.
2) To assist AIR / Doordarshan directorates in the framing of Technical Standards/specifications for broadcast products, services and networks.
3) To evaluate and test broadcast equipment to be introduced in the AIR / Doordarshan Stations / Kendras.
4) To commercially exploit R&D expertise particularly in the area of Acoustics, Propagation studies, Transmitting Antenna, Telemetry and Studio Automation.
5) To investigate operational problems of AIR stations/ Doordarshan Kendras and providing solutions.

12.6.2 Equipment Introduced

1) AM Transmission Manager
2) Digital Consoles
3) Audio Routing Switcher
4) RN Terminal
5) Test Signal Generation
6) UHF-TV Transmitting antenna
7) TV demodulator
8) Logo Generation,
9) Computer based Sports Score Display System,
10) News Room Automations System,
11) FM Antennas.
12) Synchronization of non-Co-sited HF Transmitters,

13) Phone-in Programme service,
14) AIR and DD on Internet,
15) Radio On Demand Service,
16) Interactive Radio Service (IRS),
17) Test and Evaluation of acoustic material & transducers.
18) Telemetry system for FM,
19) MW and LPTV Transmitters,
20) AM transmission Manager,
21) Radio News Room Automation system,
22) Low Power FM Antenna,
23) Web based Telemetry system for MW/FM Transmitter,
24) Remote Control and Monitoring of VLPTs

12.7 PRASAR BHARATI CORPORATION – FUNCTIONS AND POWERS

The primary duty of the Corporation is to organise and conduct public broadcasting services to inform, educate and entertain the public and to ensure a balanced development of broadcasting on radio and television.
The Corporation shall, in the discharge of its functions, be guided by the following objectives, namely:-

a. upholding the unity and integrity of the country and the values enshrined in the Constitution;
b. safeguarding the citizen's right to be informed freely, truthfully and objectively on all matters of public interest, national or international, and presenting a fair and balanced flow of information including contrasting views without advocating any opinion or ideology of its own;
c. paying special attention to the fields of education and spread of literacy, agriculture, rural development, environment, health and family welfare and science and technology;
d. providing adequate coverage to the diverse cultures and languages of the various regions of the country by broadcasting appropriate programmes;
e. providing adequate coverage to sports and games so as to encourage healthy competition and the spirit of sportsmanship;

f. providing appropriate programmes keeping in view the special needs of the youth;

g. informing and stimulating the national consciousness in regard to the status and problems of women and paying special attention to the upliftment of women;

h. promoting social justice and combating exploitation, inequality and such evils as untouchability and advancing the welfare of the weaker sections of the society;

i. safeguarding the rights of the working classes and advancing their welfare;

j. serving the rural and weaker sections of the people and those residing in border regions, backward or remote areas;

k. providing suitable programmes keeping in view the special needs of the minorities and tribal communities;

l. taking special steps to protect the interests of children, the blind, the aged, the handicapped and other vulnerable sections of the people;

m. promoting national integration by broadcasting in a manner that facilitates communication in the languages in India; and facilitating the distribution of regional broadcasting services in every State in the languages of that State;

n. providing comprehensive broadcast coverage through the choice of appropriate technology and the best utilisation of the broadcast frequencies available and ensuring high quality reception;

o. promoting research and development activities in order to ensure that radio and television broadcast technology are constantly updated; and

p. expanding broadcasting facilities by establishing additional channels of transmission at various levels.

2. in particular, and without prejudice to the generality of the foregoing provisions, the Corporation may take such steps as it thinks fit ----

a. to ensure that broadcasting is conducted as a public service to provide and produce programmes;

b. to establish a system for the gathering of news for radio and television;

c. to negotiate for purchase of, or otherwise acquire, programmes and rights or privileges in respect of sports and other events, films, serials, occasions, meetings, functions or incidents of public interest, for broadcasting and to establish procedures for the allocation of such programmes, rights or privileges to the services;

d. to establish and maintain a library or libraries of radio, television and other materials;

e. to conduct or commission, from time to time, programmes, audience research, market or technical service, which may be released to such persons and in such manner and subject to such terms and conditions as the Corporation may think fit;

f. to provide such other services as may be specified by regulations.

3. Nothing in sub-sections (2) and (3) shall prevent the Corporation from managing on behalf of the Central Government and in accordance with such terms and conditions as may be specified by that Government the broadcasting of External Services and monitoring of broadcasts made by organisations outside India on the basis of arrangements made for reimbursement of expenses by the Central Government.

4. For the purposes of ensuring that adequate time is made available for the promotion of the objectives set out in this section, the Central Government shall have the power to determine the maximum limit of broadcast time in respect of the advertisement.

5. The Corporation shall be subject to no civil liability on the ground merely that it failed to comply with any of the provisions of this section

6. The Corporation shall have power to determine and levy fees and other service charges for or in respect of the advertisements and such programmes as may be specified by regulations:
Provided that the fees and other service charges levied and collected under this sub-section shall not exceed such limits as may be determined by the Central Government, from time to time.

12.8 SUMMARY

Prasar Bharati is an autonomous regulatory body for broadcasting in India. Prasar Bharati maintains All India Radio, Doordarshan, DD News, AIR News, DD Dish and DTT. Prasar

Bharati, since its inception, has brought many new trends in broadcasting like DTT and Dish services. Prasar Bharati has a set of powers to regulate broadcasting in the country. It also has a set of functions to take up. In the next lesson we shall discuss about various committees formed to study the status of All India Radio and to suggest any required changes in broadcasting in the country.

12.9 GLOSSARY

- **Broadcaster:** An organization that transmits a programme or information by radio or television.
- **Autonomous:** Having the freedom to govern itself or control its own affairs.
- **DTT:** Digital terrestrial television (DTTV or DTT, or DTTB with "broadcasting") is a technology for terrestrial television in which land-based (terrestrial) television stations broadcast television content by radio waves to televisions in consumers' residences in a digital format.
- **DTH:** Direct-to-home (DTH) Broadcasting Service refers to the distribution of multi-channel TV programmes in Ku Band by using a satellite system by providing TV signals direct to subscribers' premises.
- **Digital Console:** In sound recording and reproduction, and sound reinforcement systems, a digital console is an electronic device for combining sounds of many different audio signals.
- **Router:** An audio router is a device that transports audio signals from inputs to outputs.
- **Demodulator:** A demodulator is an electronic circuit (or computer program in a software-defined radio) that is used to recover the information content from the modulated carrier wave.
- **Telemetry:** The process of recording and transmitting the readings of an instrument.

12.10 SELF-ASSESSMENT QUESTIONS

1) Give a brief description about Prasar Bharati.
2) Explain in detail the wings of Prasar Bharati.
3) What is National Academy of Broadcasting and what are its functions?
4) Write in detail about Research and Development wing of radio.
5) Discuss in brief the equipment introduced in broadcasting under Prasar Bharati.

6) What are the functions and powers of Prasar Bharati Corporation?

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LESSON- 13
COMMITTEES FOR DEVELOPMENT OF AIR

OBJECTIVES

After reading this lesson, the reader should be able to gain an understanding about various committees formed to study the status of All India Radio and to suggest any required changes in the field.

Key objectives of this lesson are:

- To discuss in detail the committees formed on All India Radio
- To analyse the recommendations given by each committee for development of AIR
- To study in-detail about Pitroda committee on current status of broadcasting the country

STRUCTURE

13.1 INTRODUCTION

Broadcasting in India is a continuously evolving field with new trends entering with every passing year. Many committees were formed time and again to study the status of AIR in a particular period and to suggest what new changes can be introduced into the organization. Most recent committee formed to study the status of broadcasting in the country is Pitroda committee chaired by Sam Pitroda. In this lesson, we shall discuss about all the committees formed to study the status of AIR, their recommendations and how they lead to the development of the organization.

13.2 VERGHESE COMMITTEE

The Janta Government had appointed a Working Group on the autonomy of the Akashwani and Doordarshan in August 1977. The chairman of this committee was B.G. Verghese. The committee submitted its report on February 24, 1978. This committee's main recommendation was formation of Akash Bharti or the "National Broadcasting Trust", both for the AIR and Doordarshan. The committee noted that the people want an independent corporation because, the executive, abetted by a captive parliament, shamelessly misused the Broadcasting during emergency and this must be prevented for all times.

Such was the bold recommendation of this committee, which wanted substantial "Constitutional Safeguards" for the recommended body. But these recommendations could not find favour of even Janta rulers. The minister (LK Advani) commented:

"The committee has recommended the creation of an independent, constitutional entity, parallel to the Judiciary on which the legislature has no control. No we cannot accept it".

This followed a bill in May 1979 introduced by LK Advani, who was Information and Broadcasting minister in the Government. The bill proposed the "Autonomous Corporation" known as Prasar Bharti for both AIR and Doordarshan. But the bill was introduced in the compromised state, rejecting the provisions of the constitutional safeguards. Meanwhile the Lok Sabha dissolved guaranteeing the death of this bill.

13.3 JOSHI COMMITTEE

After that Congress was back in power, but it did not considered necessary to reintroduce such bill. Though it appointed PC Joshi Committee in 1982, whose main term of reference was to prepare a software plan for Doordarshan. But this group also emphasized on the absence of "Functional Freedom" in Prasar Bharti. This committee said that the "Ministry of

Information and Broadcasting should be reorganized and a separate board on the lines of Railway Board should be created, in which only people with professional experience should get entry".

So, slowly a consensus developed for a Television Authority of India -as a public trust and under the control of the parliament and officed with only experienced professionals.

13.4 PRASAR BHARTI BILL

In 1989, the National Front government came into power. It introduced Prasar Bharti Bill in December 1989. The bill was introduced by P Upendra, the minister, who borrowed some of the articles from the previous bill introduced by Advani and also added some new ethos as per the changed scenario.

The Prasar Bharti Bill, moved by the VP Singh Government got the confidence of BJP, Leftists and Congress as well and was passed in Lok Sabha in August 1990. This was included in the election manifesto of the NF (National Front) Government, so we can imagine how difficult it must have been for the coalition government to get the support of the Congress, BJP and the lefts.

However, all of them thoroughly indulged in amelioration and 400 amendments were moved. Out of these 65 were accepted.

So, to provide for the establishment of Broadcasting Corporation for India, to be known as Prasar Bharati, to define its composition, functions and powers and to provide for matters connected therewith or incidental thereto, the Prasar Bharti Act was passed. Now from April 1, 1991, it was to be given the president's assent and the Prasar Bharti Corporation was to begin functioning from that date. But the Government changed meanwhile and the Chandrasekhar Government maintained status quo.

13.5 VARDHAN COMMITTEE

In 1992, the Information and Broadcasting ministry of PV Narsihma Rao government noted down that "the time has changed now" and this mooted the idea of the autonomy of electric media. This had actually followed the coverage of Gulf war in 1991 by CNN. People wanted to see more channels.

In September 1991, the Narsimharao Government set up a Vardan committee, under K A Vardan, the additional secretary in I& B Ministry. This committee recommended that a

second channel of Doorsharshan should be leased out in 4 metro and some FM stations should also be leased out.

So, now the Government was in dilemma. On the one side it was to liberalize the media, on the other side it did not want to lose the clutches over Doordarshan and Akashwani, which were actually a source of propaganda plus revenue for the Government.

But the credibility of Doordarshan had already fallen and now it was to face the invasion of the global media. The Government could implement the Prasar Bharti Act, and infuse professionalism to bring back its credibility, but it was not done.

Under the new policies the Narsimharao government allowed private and foreign broadcasters to engage in limited operations in India. Foreign channels like CNN, Star TV and domestic channels such as Zee TV and Sun TV started satellite broadcasts.

Meanwhile, some more experiments were done. The National Programming staff of Doordarshan took over the programming for DD Metro. The Metro channel was moved from 4 to 18 cities and now DD3, DD4, DD5 and DD6 were rolled out. In March 1995, a satellite based channel started broadcasting abroad.

But still, the condition of Doordarshan was not improved. Later KP Singh Deo, I & B Minister said that the invasion of the foreign media would be responded with an indigenous programming strategy. During this time also, the government never tried to get the act notified.

Among the new experiments it was an "Air Time Committee of India" that was proposed to lay down the procedure for allotment of slots in DD and AIR in 1993. But it was shelved later.

13.6 PITRODA COMMITTEE - RECOMMENDATIONS

An Expert Committee was set up to review the functioning of Prasar Bharati, under the aegis of Ministry of Information and Broadcasting on 28th January 2013. The Expert Committee was tasked with reviewing the institutional framework of Prasar Bharati, including its relationship with Government, its continuing role as a public broadcaster and measures needed to ensure technical up-gradation of the organisation.

To revitalise Prasar Bharati, the Committee has submitted 26 recommendations in the critical areas of: Governance and Organisation; Funding; Human Resources; Content; Technology; Archiving; Social Media; and Global Outreach. The Committee is of the opinion that

transformation of Prasar Bharati must be approached from three primary levels – the environment it functions in, its internal structure and resources, and a re-focus on its primary task – that of providing content of value to citizens of this nation.

13.6.1 Governance & Organisation

1) Prasar Bharati's vision must be to become a genuine 'public broadcaster' as against a 'government broadcaster'. For this:
   a) Constitute a Parliamentary Committee, as originally envisaged in the Prasar Bharati Act 1990, to ensure that Prasar Bharati discharges its duties in accordance with the provisions of the Act and Government defined duties.
   b) Reorganize the Prasar Bharti Board to make it a professionally managed body and make it more effective in guiding the organisation.
   c) Effect complete transfer of ownership and management of Assets and HR to Prasar Bharati to make the organisation administratively and financially autonomous of Government.
   d) Set up a Regulatory Body to ensure public accountability of Prasar Bharati with respect to all content broadcast on its television and radio networks. The Regulatory Body should be a sub-committee of the Prasar Bharati Board.
2) In addition to the public broadcasting function, there is a distinct requirement for the State to broadcast messages and accomplishments of public interest which can be met by using existing Public and Private broadcaster infrastructure.
3) Amend the Prasar Bharati Act 1990 where necessary so as to impart genuine and effective autonomy to the organisation.

13.6.2 Funding

1) Undertake a professional study to develop a funding mechanism for Prasar Bharati that addresses the need for autonomy with financial accountability. Such a funding model should include government funding, internal resource mobilisation and private investment.
2) Monetise all available archival and other assets of Prasar Bharati as soon as possible to enhance funding.
3) Augment funding of social messaging through cross-subsidising such content through entertainment-led programming and by co-opting industry through their CSR budgets

13.6.3 Human Resource

1) Enable Prasar Bharati with the power to frame rules and regulations for its employees without seeking prior approval of the Government.
2) Undertake a comprehensive manpower audit and HR planning exercise to map workforce requirements for the future in line with Prasar Bharati's mandate.
3) Supplement manpower audit with a re-deployment plan that addresses training, re-skilling and promotion of existing manpower through an institutionalised modern appraisal system.
4) Create an effective recruitment system to attract the best talent and allow the hiring of skilled professionals.
5) Encourage and initiate steps for absorption of Government employees as fulltime employees of Prasar Bharati, after an appropriate screening process. The ones who remain in Government may be considered for absorption in other departments within the government as is done in other cases.

13.6.4 Content

1) Scale up allocation of funds for content generation to 50% of the total expenditure within a period of 5-7 years.
2) Review all existing channels and content of DD and AIR, based on their relevance, output and viability and phase out those where there is sub-optimal utilisation of resources.
3) Encourage outsourcing of content creation to external producers to attract high quality and diverse programming.
4) Create distinct brand identities for different TV and Radio channels, and define the content strategy for each.

13.6.5 Technology

1) Expand the satellite and digital cable TV operations, to meet the obligation of public service broadcasting.
2) Digitalise the present AM radio system to a new digital radio transmission after due evaluation subject to cost and availability of DRM receivers. In the transition period, FM may be expanded as per demand.
3) Selectively digitalize terrestrial TV operations based on commercial viability. Any further expansion of and investment in digital terrestrial telecast should be suitably evaluated after field reviews and assessment of developments in the telecom sector.

4) Involve the private sector to expand the broadcasting market with a view to effectively utilise the infrastructure being built by Prasar Bharati to enable faster growth in the receiver ecosystem.

13.6.6 Archiving

1) Set up state-of-the-art digital archives for consolidating and preserving DD and AIR's content: both existing as well as that being currently generated. Expand scope to make it the National Audio-Visual Archives so as to consolidate and support all other government initiatives.
2) Create dedicated, multi-platform channels for dissemination of Prasar Bharati's archival products: both open access and for monetisation.

13.6.7 Social Media

1) Define and execute a Social Media Strategy of Prasar Bharati.
2) Set up Prasar Bharati Connect (PBC) as the third arm of the public service broadcaster, independent of Doordarshan and All India Radio.
3) Mandate PBC to manage the various Social Media initiatives of all the wings of Prasar Bharati.

13.6.8 Global Outreach

1) Create a world-class broadcasting service benchmarked with the best in the world using next-generation opportunities, technologies, business models and strategies. The platform should be designed for new media first and then extended to conventional TV.
2) Outline an effective content strategy for Prasar Bharati's global platforms (TV and Radio) focused on projecting the national view rather than the narrow official viewpoint.

13.7 SUMMARY

Broadcasting in India saw many changes since independence. Committees were formed by consequent governments to study the status of AIR and to give recommendations for development of the organization. Based on the recommendations given by each committee AIR has been growing significantly with new trends entering its canopy every year. The recent Sam Pitroda committee takes into purview social media presence of AIR which shows

relevance of AIR with current scenario. In the next lesson we shall discuss organizational structure of AIR.

13.8 GLOSSARY

- **Parliamentary Committee:** Parliamentary Committee means a Committee which is appointed or elected by the House or nominated by the Speaker and which works under the direction of the Speaker and presents its report to the House or to the Speaker and the Secretariat for which is provided by the Lok Sabha Secretariat.
- **Manpower Audit:** Manpower Audit is a methodology that can help to ensure that staff numbers are appropriate and to help 'right size' organisations and focus on necessary work and correctly job evaluate/grade (or rank) staff.
- **CSR:** Corporate social responsibility is a type of international private business self-regulation that aims to contribute to societal goals of a philanthropic, activist, or charitable nature by engaging in or supporting volunteering or ethically-oriented practices.
- **Outsourcing:** Outsourcing is the business practice of hiring a party outside a company to perform services and create goods that traditionally were performed in-house by the company's own employees and staff.

13.9 SELF-ASSESSMENT QUESTIONS

1) Discuss about few committee formed to study the status of broadcasting in India.
2) What are the recommendations made my Pitroda committee?
3) Explain the growth of broadcasting with a view on various committees formed to catalase this growth.
4) Discuss in detail about Prasar Bharati Bill.

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LESSON- 14

ORGANISATIONAL STRUCTURE OF AIR

OBJECTIVES

After reading this lesson, the reader should be able to understand the organization structure of radio and get an in-depth understanding of News Service Division of All India Radio.

Key Objectives of this lesson are:

- To discuss the main functions of AIR
- To study the major objectives of AIR
- To discuss the main activities of AIR
- To analyse AIR network
- To impart an understanding of organisational structure of AIR
- To discuss in-detail about News Service Division of AIR

STRUCTURE

14.1 INTRODUCTION

All India Radio is a huge organisation that works as a conglomeration of various minor wings which act as an organisation in their own. Major functions, activities, objectives and network of AIR are discussed in this lesson followed by an in-depth study of organisational structure of AIR. AIR services are also discussed as part of the organisational structure of the

organisation. Special attention is given to News Service Division of AIR. News Service Division is elaborately discussed with respect to its setup, its sources of news and its programme formats.

14.2 MAIN FUNCTIONS OF AIR

The main function of AIR is to plan, produce and broadcast programmes to listeners all over the country. These broadcasts include a good deal of entertainment, informative and educative programmes intended to aid development, along with news and current affairs.

The programmes put out by AIR stations can be divided as follows:

1) News and programmes of nation-wide interest broadcast from Delhi.
2) Regional services from individual stations each catering to the needs and interests of their respective areas.
3) Local Radio Service.
4) Programmes for listeners in foreign countries.
5) Commercial Broadcasting Service.

The principal ingredients of AIR's programme output are music, talks, interviews and discussions, newscasts, plays, features and documentaries, Educational Broadcasts, services for specific groups (rural listeners, industrial workers, women, children, youth, the Armed Forces, Tribal people etc.) and outside broadcasts. Akashvani operates through a network of 9l broadcasting stations located in different parts of the country. Dependable medium wave service reaches about 90% of the country's population.

14.3 MAJOR OBJECTIVES OF AIR

The major objectives of AIR as laid out in the Prasar Bharati Act, 1990 are as follows.

1) To uphold the unity and integrity of the country and the values enshrined in the Constitution.
2) To promote national integration.
3) To safeguard citizen’s rights to be informed on all matters of public interest by presenting a fair and balanced flow of information.
4) To pay special attention to the fields of education and spread of literacy, agriculture, rural development, environment, health and family welfare and science and technology.

5) To create awareness about women's issues and take special steps to protect the interests of children, aged and other vulnerable sections of the society.
6) To provide adequate coverage to diverse cultures, sports and games and youth affairs,
7) To promote social justice, safeguarding the rights of working classes, minorities and tribal communities,
8) To promote research and expand broadcasting facilities and development in broadcast technology.

14.4 ACTIVITIES OF AIR

1) Provide adequate programme coverage, production and transmission (in the electronic media, using the audio broadcast format at present and planned to start data, text and images, video clipping, etc., in near future) on all the important socio-economic and overall development related matters of the human being residing and moving in India, border areas, neighbouring countries/abroad.
2) Disseminate information freely and without any bias, promote education and provide entertainment and, also pay special attention on development of science and technology, health and family welfare, agriculture, social and natural justice, law and order, sports and games, youth, women and children development programme, environment, humanities, employment and opportunities, etc., including the diverse culture of India and also important news, events of public interest through various development programme prepared in different languages and dialects of various regions in popular format life music, songs, features, talks, discussions, drama, interactive programme, interviews, etc.
3) Provide news and current affairs, coverage on all the major national and international events, political affairs, social justice, life style, sports and games, weather and meteorological data, disaster and emergency data, traffic data, grievances redress system, etc.
4) AIR comprises the services of National Channel, Regional Station, Local Radio Stations, Vividh Bharati Centres, FM Service and North Eastern Service at national level and, it has also External Services at international level to meet the requirements.
5) Special broadcasts for VVIP (President/PM/ Governor/ CM etc.) and VIP coverage.
6) AIR has its own public websites i.e. www.allindiaradio.orq and http://www.newsonair.nic.in for proper communication between the AIR Network and the Public.

7) It has also an internal website for its own use and for improvement of the office communication and the data base management purpose.
8) AIR makes enough efforts and co-ordinate with other offices to earn the required revenue for its normal functioning and growth of the organization after meeting the commitment, duties and responsibilities with the mission, major goals/targets and objectives as planned, by the various commercial activities through the Commercial Broadcasting Services, Marketing Division, AIR Resource Centre and other possible systems and mechanism from time to time.
9) AIR communicates and helps the masses of all categories, castes and religions located in different geographical areas including rural, hilly, tribal, backward, mountainous, border areas and villages, as the signal reaches each and every corner of the country in minimum time and at minimum cost than any other media available to them.
10) AIR helps the large masses during various disasters and emergency (earthquake, flood, drought, tsunami, cyclone, civil war, country war etc.) by way of providing fast, authentic and enough information much conveniently at no cost.
11) AIR provides broadcast training and development functions through its training institutes (STl/RSTls, etc.) to its own employees, foreign broadcast professionals/employees and summer trainees of colleges, etc., and also arrange various workshops, seminars, etc. in collaboration with professional bodies like BES (India) for broadcast awareness and developmental activities.
12) AIR has studio systems for audition tests/recordings and archives of audio programmes.
13) AIR has broadcast transmitter systems for transmitting important messages/information contained on recorded and live programmes either in studio or outside.
14) Empowerment of people by providing free flow of information through radio broadcasting.
15) AIR caters to all vital needs of mass communication and entertainment of all sections of society and all types of people in the country and also abroad.
16) AIR is responsible for implementation of policies, schemes, plans, projects, rules, regulation and laws of Govt. and people mandate relating to broadcasting field.
17) AIR has interaction and collaboration with foreign counterparts with a view to further strengthen international co-operation and global harmony in the field of broadcasting.

14.5 NETWORK

1) All India Radio(AlR) is an electronic media and it has a network of 237 broadcasting centres with 378 Transmitters i149 Medium Wave(MW), 54 Short Wave (SW) and 175 FM tranimitters).
2) The AIR coverage is 91.80% of the area, and 99.14o/o of the people in the country. AIR covers 24 Languages and 146 dialects in home services. AIR has four tiers of services: National, Regional, Local and External Services.
3) AIR home services have three tier broadcasting system nationally, viz. national, regional and local levels.
4) AIR has an External Services Division operating since 1st October, 1939. It broadcasts various programmes to cover about 108 countries by 24 high power Transmitters (20 SW Transmitters and 4 MW Transmitters). It broadcasts in 27 languages (11 national and 16 foreign) and has about 58 news bulletins in 26 languages.
5) AIR has 45 Regional News Units, 28 Up-Linking Centres and 40 Commercial Broadcasting
6) stations in the country and an AIR Resource centre at central level.
7) AIR's DTH (Direct To Home) service has 21 channels and covers the whole of the country.
8) AIR has planned for internet based radio services round the clock to reach globally.

14.6 ORGANIZATIONAL STRUCTURE

The Directorate General, All India Radio functions under Prasar Bharati. Director General is the Head of the Department and is responsible for the overall administration and supervision of the entire AIR network. In performance of his duties and functions, the Director General, AIR is assisted by officers of the following wings.

14.6.1 Programme Wing

Additional Director Generals (ADGs) at the Headquarters and in the Regions assist the Director General in proper supervision of the stations. The Headquarters of the Regional ADGs are situated at Kolkata (Eastern Region), Mumbai (Western Region-I), Lucknow (Central Region-I), Bhopal (Central Region-II) and Guwahati (North Eastern Region), Chennai (South Region-I), Bangalore (South Region-II), Delhi (North Region-I) and Chandigarh (North Region-II). Another office of ADG is to be set-up at Ahmedabad (Western Region-II).

14.6.2 Engineering Wing

In respect of the technical matters, Director General is assisted by an Engineer-inChief and ADG (Engineering) at the Headquarters and by the Zonal Chief Engineers in zones. In addition, there is a Planning and Development Unit at the Headquarters in respect of the Development Plan Schemes of All India Radio. For the civil construction activities, the Director General is assisted by the Civil Construction Wing (CCW) of AIR, which is headed by a Chief Engineer. The CCW caters to the needs of Doordarshan also.

14.6.3 Administrative Wing

Additional Director General (Administration) and Additional Director General (Finance) assist the Director General on all matters of the administration and finance One Director each looks after the Engineering Administration, Programme Administration and financial matters.

14.6.4 Security Wing

The Director General is assisted by a Deputy Director General (Security), an Assistant Director General (Security) / Deputy Director (Security) on the matters relating to the security and safety of AIR installations viz., transmitters, studios, offices, etc. The Security requirements of Doordarshan are also looked after by these officers.

14.6.5 Audience Research Wing

There is a Director (Audience Research) to assist the Director General in carrying out feedback studies on the programmes broadcast by the stations of All India Radio. Director (Audience Research) is assisted by a Joint Director (Audience Research).

14.6.6 News Services Division

The News Services Division works round-the-clock and it broadcasts over 607 news bulletins both for Home and External Services. The bulletins are in Indian languages and various foreign languages. The Division is headed by the Director General (News). There are 46 Regional News Units in AIR. The bulletins vary from region to region according to the news worthiness of national, regional and local affairs.

14.6.7 External Services Division

The External Services Division of All India Radio broadcasts in 27 languages i.e., 15 foreign and 12 Indian languages. These services are radiated for an aggregate duration of 72 hours daily and are projected to over 100 countries.

14.6.8 Transcription & Programme Exchange Service

This service looks after the exchange of programmes among the stations, building up and maintenance of sound archives and also the commercial release of prestigious recordings of music maestros.

14.6.9 Research Department

The functions of the Research Department include Research and Development of equipment required by AIR and Doordarshan, investigation and studies relating to AIR and Doordarshan, development of prototype models of R&D equipment for limited use field trials in AIR and Doordarshan network.

14.6.10Central Store Office

AIR's Central Store Office, located at New Delhi, performs the functions relating to procurement, stocking and distribution of the engineering stores required for the maintenance of technical equipment at All India Radio Stations.

14.6.11Commercial Broadcasting Service Centres & Vividh Bharati Service (Vbs)

There are 41 Vividh Bharati-cum-Commercial Broadcasting Service (CBS) Centres including the exclusive VB Centres. The work relating to CBS is performed by two Wings i.e. Sales Wing and Production Wing. An independent Central Sales Unit along with 15 main Commercial Broadcasting Service Centres looks after the marketing of broadcast time in AIR.

14.7 AIR SERVICES

14.7.1 External Services Division

All India Radio entered the realm of external broadcasting shortly after the outbreak of II world War on 1st October, 1939-when it started a service in Pushtu for listeners across- what was then the country's North West Frontier. The service was designated to counter radio propoganda from Germany, directed towards Afghanistan, Iran and Arab countries. With the end of the war, the Victorious and Allies lost interest in continung with the propoganda warfare and the equipment was presented to AIR, which took over its active control.

Today, The External Services Division of All India Radio ranks high amongst the overseas Radio networks of the world, both in reach and range, by originating 55 transmissions daily of almost 72 hours covering over 100 countries in 27 languages, 15 foreign and 12 Indian.

The foreign languages are Arabic, Baluchi, Burmese, Chinese, Dari, French, Indonesian, Persian, Pushtu, Russian, Sinhala, Swahili, Thai, Tibetan and English (GOS). The Indian languages are Bengali,Nepali, Gujarati, Hindi, Kannada, Malayalam, Punjabi, Seraiki, Sindhi, Tamil, Telegu and Urdu. The five major services are Urdu (12hrs.15 mts.), GOS/English (8hrs. 15 mts), Hindi (5hrs.15 mts), Bengali (6hrs.30mts.), and Tamil (5 hrs. 30mts).

14.7.2 FM Service

AIR runs FM Rainbow and FM Gold Channels. There are 25 FM Rainbow channels and 5 FM Gold channels originating from 23 cities.

AIR launched FM Rainbow channel on 1st February 1993 when radio listening was on decline especially in big cities. Noise free FM transmission effectively captured its audience especially youth.

The announcer was replaced by Radio Jockey and primarily Film music based entertainment with a fast-paced and informal presentation style gained popularity with the new listener profile. The programme content of FM Rainbow is mainly popular Indian and Western music, presented in a vivacious and contemporary style and highly popular with the urban youth which commands impressive listening and pride of place amidst the mosaic of channels.

FM Gold Channel which came on air on 1st Sept. 2001 provides round the clock service and presents popular film music in its distinctive style, while keeping its listeners updated with current affairs and News on the hour.

14.7.3 Vividh Bharati Service

The popular Vividh Bharati Service of All India Radio was conceptualized in 1957 to meet the competition offered by Radio Ceylon. It established itself as a popular channel in the country. Today the service provides entertainment for 15 to 17 hours from its 41 centres , with a mix of music and film-based content,skits, short plays and interactive programmes. The Vividh Bharati service is webstreamed and is also available on the FM transmitter network for wide access. Some popular programmes of Vividh Bharati are 'SANGEET SARITA', 'BHULE BISRE GEET', 'HAWA MAHAL', 'JAIMALA', 'INSE MILIYE' and 'CHHAYA GEET'.“Pitara” is a very popular variety programme on Vividh Bharati Service broadcast daily from 1600 Hrs to 1700 Hrs.

14.7.4 Archive Services

AIR preserves the cultural and intellectual wealth of the country in its Archive - recordings of eminent musicians, men and women of letters, political figures, intellectuals, leaders, statesmen and luminaries in various walks of life and is an important national resource for historians, scholars, music enthusiasts and others. AIR releases rare archival recordings from time to time for public access.

AIR has made it possible for Indians to tune in Gandhiji's famous prayer meeting addresses thereby increasing the number of Gandhiji's listeners by four or five millions overnight ! About 51 hours of these recordings can be heard today.

14.7.5 News Service Division

The News Services Division (NSD) of All India Radio disseminates news and commentaries for listeners in India and abroad. From 27 news bulletins in 1939-40, AIR today puts out more than 510 bulletins daily for a duration of approximately 52 hours in 82 languages/dialects in the Home, Regional and External Services. 89 bulletins are broadcast daily from New Delhi in the Home Service in English, Hindi and other Indian languages. The 44 Regional News Units (RNUs) puts out 355 daily news bulletins in 67 languages.

The News Services Division also mounts daily, a number of news-based programmes on topical subjects from New Delhi and its Regional News Units.

14.7.6 Technical Services

Technical services are the backbone of the AIR network. All India Radio plans, designs, installs, operates and maintains its studios, transmitters and allied technical services through in-house expertise. E-in-C is the overall Head of all engineering operations in the entire AIR network. He is the Chief Technical Adviser to the Ministry of Information & Broadcasting in matters relating to sound broadcasting.

14.8 NEWS SERVICES DIVISION

Living up to its noble ideals of "Bahujan Hitaya, Bahujan Sukhaya", the News Services Division (NSD) of AIR strives to provide news and views to every dweller in this vast country in varied terrains, 24X7, in all major languages and dialects, while adhering to highest professional ethics and standards in Radio Broadcasting.

14.8.1 Setup of NSD

The News Services Division is headed by a Director General (News), who is one of the senior most officers of the Indian Information Service. He is assisted by a team of Additional Directors General (News), Directors (News) and Joint Directors (News), Deputy Directors (News), Asstt. Directors (News), News Editors and Reporters etc. The different operational wings of NSD at headquarters in Delhi include: General News Room, Hindi News Room, Reporting Unit, Talks and Current Affairs Unit, Newsreel Unit, Indian Language Units, Reference and PP&D Unit, IT & Website unit and Administrative Wing. The Regional News Units in various States are headed by an officer of the rank of Director or Deputy Director/Assistant Director and assisted by News Editors, Reporters and Newsreaders-cum-Translators.

14.8.2 Source of News

The bulk of AIR news comes from its own Correspondents spread all over the country. It has more than 81 regular Correspondents in India and abroad at Colombo, Dhaka, Dubai and Kathmandu. Apart from this, AIR has over 520 Part-time Correspondents based at nearly all district headquarters. The PTCs are to meet the requirements of Doordarshan News also. NSD subscribes to the news wire agencies – UNI, PTI and their corresponding Hindi services – Univarta and Bhasha.

14.8.3 Output

- 607 bulletins daily in 92 languages/dialects
- Foreign language bulletins in Arabic, Baluchi, Burmese, Dari, French, Indonesia, Persian, Pashtu, Russian, Sinhala, Swahili, Tibetan, Thai, Chinese etc.
- Over 60 hours of total daily broadcast of news bulletins and current affairs programs
- Special bulletins/programmes during elections, budgets, sessions of parliament/state legislatures

14.8.4 Radio Plus

News on Website, News on Social Media- Facebook, Twitter, Soundcloud, YouTube & Instagram.

14.8.5 Regional Bulletins

Regional news bulletins were introduced in the early fifties. The first such news bulletins were broadcasted in April, 1953 from Lucknow and Nagpur Stations. In 1954-55, Regional

News Units were set up at Bombay, Madras and Calcutta. This went on steadily and at present there are 46 Regional News Units functioning in different parts of the country. 478 news bulletins in 77 regional languages/dialects including English and Hindi are being broadcast from RNUs for a duration of nearly 38 hours. These include 255 headlines bulletins on FM and other frequencies.

14.8.6 News BaSed Programmes

During February 1936, talks on current topics were introduced for the first time in English. In September that year, talks on current topics in Hindustani were added. Later 'Topics for Today' and 'Focus' on matters of current interests were introduced on 26th October, 1962. In 1967, the programmes "Topic for Today" and "Focus" were renamed as "Spotlight and "Current Affairs".

14.8.7 Coverage of Parliamentary Proceedings

The daily and weekly reviews of the proceedings in Parliament during the sessions were introduced on February 14, 1961 in English and Hindi. The daily review called 'Today in Parliament' in English and 'Sansad Sameeksha' in Hindi has two parts, one on the proceedings in the Lok Sabha and the other on those in the Rajya Sabha. The weekly review in English – 'This week in Parliament' and that in Hindi ' Is Saptah Sansad Main' – sums up the important highlights of the proceedings in both Houses during the preceding week.

The broadcast of the daily and 'Weekly Reviews' of the proceedings of the State legislatures, when they are in session, were started in 1971-72 in the respective regional languages. A review of the 'Proceedings of the Delhi Assembly' was started from December 14, 1993.

14.8.8 Radio Newsreel

Radio Newsreel was started on December 10, 1955 both in English (Radio Newsreel) and Hindi (Samachar Darshan) from Delhi. Newsreel in English is broadcast on Monday, Tuesday, Thursday and Saturday while Samachar Darshan is broadcast on Wednesday, Friday and Sunday. Some Regional News Units also put out regional Newsreels in the respective regional languages.

14.8.9 Social Media

The NSD, AIR has been expanding its presence year after year, across various domains with the aim to disseminate news to the public and reaching diverse cross sections of the society. NSD, AIR has embraced new technologies and practices, since last three years, to add to its

traditional platform and disseminate News and Discussion Programmes on New Media applications, including Social Media, as Radio..

Since three years, the News Services Division has substantially increased its presence on the social media viz Website, Facebook, Twitter, Soundcloud, YouTube & Instagram and has crossed major milestones in reaching out to audience far and wide.

14.9 SUMMARY

All India Radio is a magnificent organisation comprising many subordinate divisions to enable segregation of functions and powers. Five major wings of AIR are programming wing, engineering wing, administrative wing, and audience research wing and news service division. AIR also has various external services and FM services to support its mainstream broadcasts. News service division is studied in depth in this lesson. In next lesson we shall discuss the working of a radio station.

14.10 GLOSSARY

- **Bulletin:** A short official statement or broadcast summary of news.
- **Review:** A critical appraisal of a book, play, film, etc. published in a newspaper or magazine.
- **News Reel:** A short film of news and current affairs, formerly made for showing as part of the programme in a cinema.
- **Social Media:** Social media is computer-based technology that facilitates the sharing of ideas, thoughts, and information through the building of virtual networks and communities. By design, social media is internet-based and gives users quick electronic communication of content.

14.11 SELF-ASSESSMENT QUESTIONS

1) What are the main functions, objectives and activities of AIR?
2) Write in detail about organisational structure of AIR.
3) What are the major divisions of AIR?
4) What are the parallel services offered by AIR?
5) Explain in detail about News Service Division

14.12 SUGGESTED READINGS

1) All India Radio. (1991). *Lok Sabha Poll.* India: News Services Division, All India Radio, Government of India.

2) Caroline Mitchell, B. L. (2009). *Managing Radio.* United Kingdom : Lulu.com.

3) Keith, M. C. (2010). *The Radio Station: Broadcast, Satellite & Internet.* Netherlands: Focal Press.

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LESSON- 15

WORKING OF A RADIO STATION

OBJECTIVES

After reading this lesson, the reader should be able to gain an in-depth understanding of the working of a radio station.

Key objectives of this lesson are:

- To impart an understanding of the working of a radio station
- To study the functions and responsibilities of station heads and officers

STRUCTURE

15.1 INTRODUCTION

Radio station has a complex working structure. In this lesson we shall discuss the organisational structure of radio. Who is who of radio shall be discussed and functions and responsibilities of station heads and officers are analysed. Duties and responsibilities of station engineers are also discussed.

15.2 WHO IS WHO OF RADIO

1) The Station Director is the Head of the Programme wing at an AIR Station.
2) He is assisted by Assistant Station Director who in turn is assisted by
    a. Programme Executives,
    b. Producers,
    c. FROs,
    d. Extension Officers (Family Welfare),
    e. Transmission Executives,
    f. Sub-Editor/Assistant Editors (Script Writers);
    g. Reporters,
    h. Announcers,
    i. Comperes,
    j. Production Assistants,
    k. Music Composers,
    l. Musicians,
    m. Programme Secretaries (UDC/CGI),
    n. Studio Executives (UDC/CGI),
    o. Librarian
3) The Engineering Wing at a Station is headed by a Superintending Engineer or a Station Engineer, depending mainly upon the transmitter power involved.

    The Head of the Engineering Wing is assisted by
    a) Assistant Station Engineer,
    b) Assistant Engineer,
    c) Senior Engineering Assistants,
    d) Engineering Assistants,
    e) Senior Technicians,
    f) Technicians and
    g) Storekeepers (Senior & Junior).
4) On the Administration side, there are
    a. Senior Administrative Officers
    b. Administrative Officer
    c. Accountant(Assistant)/Head Clerk,
    d. Clerk Grade I(UDC),
    e. Clerk Grade II(LDC),

f. Cashier(LDC) and

g. Telephone Operators(LDC)

Besides, there are

a) Motor Drivers,

b) Studio Attendants and

c) Group `D' Staff.

5) In respect of Local Radio Stations, the ASD is the Head of office.

On the Programme side, the ASD is assisted by

a) Programme Executive

b) FRO

c) Announcers

d) Production Assistant

e) Librarian.

On the Engineering side, there is an ASE assisted by Engineering Assistants/Technicians.

6) A few Stations of AIR have a Regional News Unit which is headed by a News Editor or an Assistant News Editor.

He is assisted by an

a) Assistant Editor (News),

b) Sub Editor

c) News Reader

d) Translator

e) Production Assistant.

Besides, there is also a Correspondent at several centres.

15.3 DUTIES AND RESPONSIBILITIES OF THE HEAD OF OFFICE

For efficient and smooth functioning of the Station one of the senior most Programme or Engineering Officer is declared as the Head of the Office. The Director General, All India Radio is competent to declare any gazetted officer subordinate to him as head of office provided that not more than one gazetted officer shall be declared as Head of Office in respect of the same office.

The broad functions and responsibilities of the Head of the Office are as under:

a) Overall responsibility:

A Head of the Office may authorize gazetted officers serving under him to incur contingent and miscellaneous expenditure on his behalf subject to such restrictions and limitations as may be laid down by him. He may authorize any Gazetted Officer

of the office is no Senior Administrative Officer/Administrative Officer. However, the Head of the Office shall continue to be responsible for the correctness, regularity and propriety of the expenditure incurred by the gazetted officer so authorized.

b) Disciplinary/Recruiting Authority:

The Head of Office is also the Disciplinary Authority in respect of Group `C' and D' staff. As a result of the rotational system of headship at many AIR Stations, the respective heads of disciplines have been made recruiting authority. But the responsibility for appointment, discipline and service conditions shall continue with the head of the Office.

c) Recruitment:

Recruitment of regular staff in groups `C' and `D' is to be done by the Head of office, in accordance with the rules, instructions, orders etc., issued by the Government from time to time regarding the source of recruitment, reservations for different categories, medical fitness, verification of character and antecedents etc. Recruitment of `Artists' and certain Group `C' technical posts other than Engineering Assistant will be handled by the Programme/Engineering Head respectively but the formal appointment orders will be issued by the Head of Office.

d) Procedure for Recruitment of Staff Artists/Artist:

All matters relating to the recruitment of `Artists' at the stations where the Station Directors are in position should be handled by them i.e. Station Directors even though the Station Director may not be Head of Office. However, at Stations where there is no Station Director, the recruitment of `Artists' should be handled by the Station Director of the main station in the State who will act as the Chairman of the Selection Committee.

e) Procedure for recruitment of Technical Staff:

All matters relating to the recruitment to technical posts like Mast Technician, Technician, Diesel Engine Driver, Carpenter and Painter etc. should be handled by the Superintending Engineer or Station Engineer of a station, where they are in position, even though they may not be the Head of Office. The Superintending Engineer/Station Engineer would be the Chairman of the Selection Committee.

f) Other Functions:

The Head of Office is also responsible for other jobs like grant of leave, increments, Efficiency Bar, termination of probationary period, Quasi-Permanency, transfer, confirmation, promotion; disciplinary action, review at the age of 50/55, superannuation etc.

15.4 PRINCIPAL DUTIES OF AN ENGINEERING HEAD

a) Overall in-charge of the technical activities of the Station.

b) Preparation of budget estimates and control of expenditure relating to machinery and equipment (Tools & Plants), telephone lines, OB lines, power supply, minor works, technical furniture, technical books and journals.

c) To supervise the new staff posted to the station, familiarize themselves with their work so that they can operate equipment with safety.
d) To assist the Zonal Chief Engineer in carrying out minor project work, holding measurement books and Capital stores.
e) All duties and control in respect of the technical staff at stations.
f) To assist the research engineer in respect of making scientific observations and connected experimental work.
g) To keep liaison with Civil Construction Wing, P&T and electric supply authorities.
h) Promotion of the use of Hindi in official correspondence.
i) Selection and interviewing of engineering staff.

15.5 ASSISTANT STATION ENGINEER/ASSISTANT ENGINEER.

a) In-charge of specific maintenance teams for
    i) Transmitter,
    ii) Studio Centres,
    iii) Receiving Centres,
    iv) Outside Broadcast Equipment,
    v) Air-conditioning and
    vi) Other Station equipment.
b) In-charge of Engineering stores at stations / offices.
c) Preparation of periodical reports.
d) In-charge of operational shifts at Transmitters and major Studio Centre.
e) In-charge of aerials and feeder line maintenance at SW Centre.
f) In-charge of recording, dubbing and O.B. activities.
g) Maintenance, Installation, Engineering, Administration and other technical responsibilities at Stations/Offices of All India Radio.

15.6 ASSISTANT STATION ENGINEER (COMMUNITY LISTENING, SRINAGAR, KASHMIR).

a) In-charge of the Community Listening Unit.
b) Will be responsible for installation and maintenance of Community Listening radio receivers under the control.
c) Coordination of the work of the staff working in his unit.
d) Administrative duties connected with his unit.

15.7 SENIOR ENGINEERING ASSISTANT.

a) Chief in-charge at Control Rooms, handling up to three simultaneous transmission channels.
b) Recording and Dubbing maintenance and operations.
c) Transmission duties at Master Switching Room.
d) Shift-in-charge at each medium power transmitter or a group of low power transmitter at a single location and shift duties at High Power Transmitters.
e) Assisting Senior Staff in maintenance, installation, Engineering, Administration and other technical activities as may be assigned to him.

15.8 ENGINEERING ASSISTANT.

a) Transmission duties at studios, Receiving & Transmitting Centre.
b) Outside Broadcast Operations.
c) Recording & Dubbing operations.
d) S.W. Aerial operations at HPTs.
e) Assisting senior staff in maintenance and installation work and other technical activities as may be assigned to him.

15.9 SENIOR TECHNICIAN/TECHNICIAN/WIREMAN TECHNICIAN/ELECTRICIAN

a) To assist the operational staff at the Transmitter, studios, receiving centres, outside broadcasts, etc. for maintaining the continuity of service.
b) To assist in carrying out preventive maintenance at all the Centres and keeping all equipment clean.
c) To assist in aerial selection, stub changing, reversal of beams, etc., in the aerial field and manning and operating feeder switching structures, etc.
d) To operate and run standby power supply units.
e) To assist the Engineering Staff in repair and over-haul of equipment.
f) To assist in special maintenance and tests on aerials, feeder lines, air-conditioning plants, tape-recorders, standby equipment, standby power supply arrangements and other ancillary plants and equipment.
g) To check-up and maintain the fire-fighting appliances, tools and batteries, clock circuits, torches, hand lamps, etc. at regular intervals.
h) To check monitoring circuits, inter-cum-circuits and emergency lighting arrangements and report any faults.

i) To check tools and keep them in good working order after necessary repairs.
j) To assist in carrying out minor installation works at the Stations.
k) To assist in carrying out installation and testing of transmitters, studios, receiving centres, aerials, feeder substation equipment, air-conditioning plant, Diesel/petrol generating sets, and other associated works including cabling and wiring.
l) To assist in periodical changing of oil in oil-filled components and in testing the oil.
m) To assist in the checking of engineering stores.
n) To perform such work as may be assigned by superior officers in the interest of service.

15.10 DUTIES EXCLUSIVE TO SENIOR TECHNICIAN

He is expected to handle particularly complex jobs, at the discretion of his superior officers. In addition he operates Tape Duplicating Machines.

15.11 RADIO TECHNICIAN

a) Routine testing of equipment.
b) Assisting engineering staff in wiring of transmitting, studio and receiving equipment.
c) Attending to repairs of equipment, radio receivers, etc.
d) Testing of tapes, erasing of tapes, etc.
e) Maintaining registers for tools and plant and assisting in verification of engineering stores.

15.12 SUMMARY

Radio station is run by many subordinate wings which have a hoard of manning staff to ensure the smooth running of a station. Each wing has a hierarchy of members to segregate the functions and duties of each particular wing. In this lesson, we discussed the functions and duties of various personnel of a radio station. In the next lesson we shall discuss about other important radio personnel like Programme Executives and Transmission Executives of radio, their functions, duties and responsibilities in ensuring the smooth running of a radio station.

15.13 GLOSSARY

- **Outdoor Broadcasting:** Outside broadcasting (OB) is the electronic field production (EFP) of television or radio programmes (typically to cover television news and sports television events) from a mobile remote broadcast television studio.
- **Tape Duplicating:** Cassette tape duplication is the process of making duplicate copies from a pre-recorded audio cassette tape.

15.14 SELF-ASSESSMENT QUESTIONS

1) List out the members in a programme wing of a radio station.
2) List out the members in engineering wing of a radio station
3) What are the duties and responsibilities of a head of the office of a station?
4) What are the duties of all members of engineering wing?
5) What are the duties of various technicians of a station?

15.15 SUGGESTED READINGS

1) James Leonard Reinsch, E. I. (1960). *Radio Station Management.* United States: Harper.
2) John Allen Hendricks, B. M. (2018). *The Radio Station: Broadcasting, Podcasting, and Streaming.* United Kingdom: Taylor & Francis.

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LESSON- 16

PROGRAMME OFFICERS AND RADIO ARTISTS

OBJECTIVES

After reading this lesson, the readers should be able to understand the basic functions and responsibilities of programme officers and radio artists of a radio station.

Key objectives of this lesson are:

- To discuss the functions and duties of programming officers
- To discuss in-depth about programme executives
- To discuss in-depth about transmission executives
- To study the functions and responsibilities of artists at radio

STRUCTURE

16.1 INTRODUCTION

Apart from station heads and respective officers for each wing, there are many other important radio staff who form the backbone of a radio station. Programme officers like programme executives and transmission executives are the key to the working of a radio station. Talent at AIR also have a set of functions and responsibilities to abide by. In this lesson, we shall discuss about the functions, duties and responsibilities of these radio personnel.

16.2 PROGRAMME OFFICERS AT STATIONS

Programme officers can be broadly categorized into

1) Programme Head
2) Assistant Station Director
3) Audience Research Officer
4) Programme Executives
5) Farm Radio Officer
6) Extension Officer
7) Transmission Executives
8) Field Reporter

9) Farm Radio Reporter

16.2.1 Programme Head

Principal Functions and Responsibilities of a Programme Head are supervision and organisation of Programme which broadly include:

a) Planning and Scheduling, Production and presentation, transmission of programmes.
b) Implementation of directives issued by the Directorate on specific aspects of programme policy.
c) Scrutiny and approval of programme schedules/ proposals.
d) Engagement of casual artists/talkers/authors, fixing of their fees, execution of contracts with them and payment to them.
e) Recruitment of Staff artists in artist category and other programme staff in respect of whom SD is the recruiting/appointing authority.
f) Allocation of the duties of the entire programme staff including Staff Artists, direction and supervision of their work in all aspects.
g) Constitution and convening of Audition Committees, audition and classification of artists.
h) Maintenance of libraries of books/ newspapers/journals/gramophone records/tapes etc.
i) Constitution of Advisory Committees, Consultative Panels, convening and presiding over the meetings, preparation of Reports Memoranda, Notes and minutes pertaining to Committees/Panels.
j) Arrangements pertaining to the functions organised for invited audiences, issue of invitations, hiring of halls and outside-broadcasts.
k) Publicity.
l) Relations with the State Government.
m) Close contact with the press and listeners and constant watch over press and listener reactions.
n) Audience Research.
o) Liaison with musicians, musicologists, litterateurs, scientists and eminent personalities.
p) Submission of periodical reports to the Directorate.
q) Preparation of programme Budget Estimates and Control over the expenditure on programmes, Audience Research and public relations and Budget of the station.

r) Promotion of the use of Hindi, in official correspondence.
s) Coordination with other stations in the programme zone.
t) Inter Media Coordination and conducting campaigns.
u) Utilisation of OH vehicles and drivers.

16.2.2 Assistant Station Director

The duties of Assistant Station Director in charge of Administration corresponds to those of the Sr. Administrative Officer/Administrative Officer. The Asstt. Station Director (Programmes) assists the Station Director in all matters concerning the Planning and Production of programmes; he supervises the work of the Programme Executives and Producers; he is responsible for part of programmes administration and such other functions which the Station Director assigns him.

16.2.3 Audience Research Officer

To make a systematic study of the public's listening habits, taste and reaction in particular to study how broadcast can be made a more effective medium of mass communication. In practice this would involve employing appropriate scientific methods.

Methods:

a) To collect facts about radio listener and radio listening;
b) To assess listener reaction to programme broadcast;
c) To study how information, education and entertainment could be effectively communicated to listeners at different levels of understanding

16.2.4 Programme Executives

16.2.4.1 General

a) The staff entrusted with the Planning and. Production of programmes at an AIR Station is divided into a number of individual units, each responsible for a particular branch of activity. The number of such units and the strength of each Unit varies according to the size and programme output of individual AIR Station, but the basic pattern is the same.
b) The Programme Executive plays a pivotal role. He is at once the convenor, the co-ordinator, and the conductor - in respect of all functions and activities of the unit to which he is attached. He arranges discussions and consultations, within the unit; he co-ordinates the work of different members of his unit, and the work of his unit with

that of the other Programme Units at the Station; and he provides the means to translate ideas and plans into actual broadcasts.

16.2.4.2 Broad Categories of Functions

For a detailed and precise picture, the duties and functions of Programme Executives can be divided into the following categories:

a) Planning and Co-ordination

b) Programme Administration

c) Programme Production

d) Public Relations.

16.2.4.3 Planning and Co-ordination:

a) Preparation and maintenance of the basic fixed-point schedule according to which time and channels are apportioned after taking into account factors like the nature of the Programme, listener habits and preferences, requirements of balance and variety, co-ordination with the plans of other stations in the region as well as with the centrally organized National Broadcasts and other programmes of nation-wide coverage.

b) Processing of instructions received from the Directorate; of recommendations made by various central and regional advisory committees, and at conferences and seminars organized by AIR and decisions taken at the daily programme review and planning at the stations.

c) Preparation of quarterly schedules for various categories of programmes, keeping in view the requirements of topicality, consideration or balance and variety, compliance with policy directives etc.

d) Preparation of the weekly programme schedules for publication in AIR programme journals, timely incorporation of changes which become necessary, after the submission of the initial schedules.

e) Preparation of daily transmission cue-sheets, incorporating last minute changes and adjustment.

f) Preparation of rehearsal and production charts involving allocation of artists, Studios, equipment and other facilities.

g) Compilation and maintenance of classified lists of various categories of artists, talkers and performers, in consultation with the Programme Production Staff.

h) Study and examination of listeners' reactions and press comments, and working out their implications in terms of programme planning.

i) Organising action on special programme projects, either long-term or short-term, for instance, recording and collection of folk and devotional music, of renderings of classical music by Old Masters of stage songs and other material of rare value - for use in programmes and for preservation in the Archives.

16.2.4.4 Programme Administration:

a) Watching tile progress of expenditure under the relevant budget heads in terms of the allotment made to different Programme Units working out fees and expenses to be paid to artists according to the scales prescribed; and submission of detailed proposals pertaining thereto, for sanction by the Station Director.

b) Execution of contracts with artists, talkers, performers and writers; attending to all aspects of copyright; and carrying out correspondence pertaining to such transactions.

c) Dealing with correspondence with listeners, with other stations of AIR, and with the Directorate on various aspects of programmes.

d) Dealing with all administrative work involved in the procedure governing audition and classification of artists.

e) Requisitioning of tape-recordings, gramophone records and scripts for use in broadcasts, as per schedules.

f) Supervision over the maintenance of libraries of gramophone records and tape-recordings and over the maintenance of musical instruments.

g) Supervision over the functioning and discipline of the staff working in the unit.

h) Organisational work connected with the supply of tape-recorded programmes to the Programme Exchange Unit, to services like the Vividh Bharati, the linked stations, and to other stations making a request for such materials.

i) Bringing out pamphlets and brochures in respect of services like School Broadcasts, Farm Forum Programmes and any other special type of broadcasts.

j) Preparation of reports, memoranda, notes and minutes pertaining to meetings of advisory committees.

k) Doing duty during transmissions in order to supervise the work of the transmission staff, and to deal with any emergencies.

l) Supervision and maintenance of transport, and coordination of transport requirements of various units, maintenance of relevant records. He may also be entrusted with the work:
   i) Reviewing the Car Log Book every day and signing after the last entry in token of check and approval of journeys performed (vide Instruction 4 on Form AIR A.60).
   ii) Attesting every entry in form AIR-A61 Petrol, Oil and Maintenance Account (vide paragraph
m) Arrangements in connection with outside broadcasts.
n) Arrangements pertaining to the functions organised for invited audiences, issue of invitations, hiring of halls, seating arrangements, reception facilities etc.
o) Organizational work relating to various types of listener clubs, Radio Rural Forums, Women's and children's listening clubs, Industrial Listening Forums and maintenance of relevant records.
p) Programme Executives are also authorised to grant casual leave to staff working under them.

16.2.4.5 Programme Production

The Programme Executive is required to plan and produce features, talks, plays, music programmes, women's and children's programmes, school broadcast and other programmes broadcast at AIR Stations/Doordarshan Kendra.

In short, his production duties consist of:-

a) To plan programmes in consultation with other officers;
b) To ensure the successful presentation 0f such programmes by coordinating the activities of staff in the Unit and with other Units.
c) To present radio reports, to interview people, to take part in discussions, plays, features etc., to read scripts of stories, poems etc. and to present programmes for special audiences.
d) Programme Executives of Music programmes are also expected to give solo performances, presenting music lessons etc.
e) To present various types of Programmes including Rehearsal, Recording etc.

f) To conduct and supervise the correspondence, maintenance of registers, catalogues, etc. pertaining to the special activity for which the Programme Executive is responsible.

g) To write scripts and to take part in the production of any programmes planned or produced by him.

h) To edit and adapt material to be broadcast.

i) To maintain background material for programmes for reference.

j) To render all such assistance to the Head of the Programme Wing as may be necessary for the smooth working of the station.

In short, the functions of a Programme Executive in the planning and production of programmes are comparable to that of a Stage Manager who in order that the performance goes through successfully, must know every bit and detail of the entire programme and be able to give suggestions and advice from a professional and technical angle.

16.2.4.6 Public Relations

Another important category of functions performed by the programme executive is in the field of public relations. These pertain to dealing with the artists and talkers who are booked, attending the various public activities and functions which take place in the sphere of literature, art, industry, social welfare, national development, etc. activities with which the programme executive must keep in constant touch so that these can be reflected in the programmes in one way or other; He has also to be aware of public reactions to the programmes as expressed in letters; in conversion and through the press.

16.2.5 Farm Radio Officer

a) He supervises the working of the Farm and Home Cell at All India Radio Station concerned.

b) He is responsible for production of Agriculture programmes from All India Radio Station applicable to the area.

c) Interviews farmers and specialists in agriculture.

d) Collects information necessary for effectiveness of programmes.

e) Maintains close collaboration and good working relationship with the officers of the department of Agriculture of the State Government/Agriculture University.

16.2.6 Extension Officer

a) He supervises the working of the unit broadcasting programmes on Family Welfare, Child care and Health.

b) He is responsible for the work of Planning and Production of Programmes on Family Welfare and Child care and Health.

c) He interviews Specialists and social workers of repute for the purpose of broadcast; collects information necessary for the effectiveness of the programmes, in the areas having utility for the purpose of broadcast concerning family planning and health education.

d) Maintains close liaison and good working relationship with the officers of the State Health Department and voluntary organization in the field of Health Family Welfare and Child care.

e) Planning and coordination, Programme Administration and Programme production of family welfare programmes and other allied matters.

16.2.7 Transmission Executives

The Programme Cadre in AIR starts from the post of Transmission Executive. The duties of the Transmission Executives are multifarious in nature.

These are broadly indicated below:

a) The Transmission Executive is placed in-charge of the Station's transmissions and he functions as the Duty Officer He coordinates between the performing artists/talkers, the programme presentation staff and the Engineers. He is responsible for collection and issue of all the programme material and their broadcast according to the programme cue sheet. Outside office hours he is also placed in-charge of duty vehicles and functions as contact officer assisting the Station Director.

b) The Transmission Executive is responsible for carefully watching the various items of programmes broadcast and preparing the Daily Report in form AIR-P-29. Any deviations from the scheduled programmes are noted in the form each day and a consolidated report for a month sent to the Director General, All India Radio, by the 1st week of next month.

c) The Transmission Executive should evaluate programmes at All India Radio Stations/ Offices and enter their assessment in the column "Remarks for Card Index" of the Daily Report for the day's broadcast. The assessment should be discussed in the next

programme meeting and modified or revised in the light of comments of Senior Programme Officers concerned etc. in the meeting. Thereafter the final assessment should be entered in the Card Index.

d) Those Transmission Executives who are on duty in the morning shift should attend the programme meeting to be held on that day. These Transmission Executives will later apprise their colleagues, that is, other Transmission Executives, of the discussion held and decisions taken in the meeting, which concern them.

e) Detailed entries should also be made in the Studio Log Book by the Transmission Executives. Great care should be taken for making entries in this book as it is the main initial record for making payments to artists, talkers, gramophone record companies etc. Every entry in the Log Book should be initiated by the Transmission Executives. While making entries of Broadcast of tapes he should also indicate when possible the date of recording and payment position in the Studio Log Book so that the Accountant could complete the entries in the separate Pay Order Book (for pre-recorded programmes) and ensure that all such programmes are broadcast.

f) Note. One set of Log Books should be maintained for Mondays, Wednesdays, and Fridays and another for the remaining days of the week. The stations which do not originate programmes may maintain only one Studio Log Book.

g) Payments to artists are made by the officer on duty who issues the certificate of broadcast. Form AIR-A-28 is used for making payment of fees for re-broadcast of AIR recordings/tapes. The upper portion of this form is filled by the Programme Section a day in advance of the date of broadcast. The performance certificate should be completed by the Duty Officer as soon as the broadcast is over. The certificate should be countersigned by the Programme Executive concerned and the next Senior Programme Officer before the same is sent to the Accounts Section for payment. Cheques in respect of payment of amounts of Rs.lO and above along with contracts, acceptances etc., relating to a day, sent by the Accounts Section in Pay Order Book (AIR-A.2) should be acknowledged by the Transmission Executive in columns thereof. Cash of payment of sums less than Rs. 10 should be received by the officer on duty from the cashier and acknowledged by the former in the pay order book. The cashier should keep a note of this in a separate note book kept in the cash chest. The Transmission Executive should hand over the cheque or cash to the artist and obtain the artists signature on the voucher. The officer on duty should compare the signature

of the artist on the artists receipt with the signature on the contract before actually handing over the cheque/cash. A rubber stamp with the inscription "Payment made by....." should be affixed on all vouchers below the artist's signature and should be signed by the officer on duty.

h) If in a rare case the cheque is not ready for disbursement to the artist at the time of broadcast; the officer on duty may complete the certificate of broadcast and send the same to the office, the next day when the office will prepare the cheque and forward it by registered post or remit the amount by Money Order as the case may be. A copy of the memorandum forwarding the cheque to the payee by post should be filled along with the voucher.

i) The undelivered cheques and undisbursed cash pertaining to artists who do not turn up and the receipts in cases where payments have been actually made should be sent by the officer on duty along with the Log Book and all documents to the Accounts Section the next day for further action.

j) The preparation of statistics of Western and Indian Music broadcast during the month of transmission to the Director General is also the responsibility of the Transmission Executive.

k) The Transmission Executive should record, dub, edit and playback programmes of all kinds. He assists in the production of programmes of all kinds, and preparation of newsreels whenever necessary. He should maintain register of blank tapes, recorded tapes etc. according to the system in force. He is also expected to take part in the plays and features.

l) The Transmission Executive also should assist in the preparation of news material for the Press Radio and sub-editing of news in English and other Indian Languages. He is also expected to prepare the analysis of English and Indian languages Press Reports, editorials etc. and translation of English language material into Indian languages and vice-versa.

m) Wherever required, the Transmission Executive should write scripts of plays, features, talks, stories etc. for all categories of programmes; edit and adapt material to be broadcast; read scripts and take part in their presentation, maintain catalogues of scripts and background material for reference etc.

n) The Transmission Executive is also expected to write announcements, check and select broadcast materials, translate news summary and assist supervisory staff in auditioning of music artists and drama voices.

o) The Transmission Executive is also expected to perform any other duties which may be assigned to him from time to time.

16.2.8 Field Reporter

He will assist the Extension Officer in the day-to-day working of the Unit and collect material for production of programmes on Family Planning and Health Education.

16.2.9 Farm Radio Reporter

a) He assists the Farm Radio Officer in production of Agricultural Programmes from All India Radio Station.

b) Interviews Farmers and Specialists for the purpose of agricultural broadcasts, and assists Farm Radio Officer in collecting information necessary for effectiveness of the programmes.

16.3 FUNCTIONS AND RESPONSIBILITIES OF DIFFERENT CATEGORIES OF ARTISTS

16.3.1 Announcers/Comperes

a) To write announcements and broadcast them and to play back recordings of music and other programmes while announcing them.

b) To write presentation scripts for special programmes of music, including the selection of records, etc.

c) To reply to listeners letters.

d) To fill in the fault reports, log books, etc. for the transmissions in which they are on duty.

e) To take part occasionally in features, plays, special audience programmes etc.

f) Occasionally to read scripts, commentaries, short stories, etc. written by staff or outsiders, to help and present programmes for special audiences.

g) Compering of various categories of programmes.

h) To maintain registers and Index relating to the special programme activity.

i) Any other duties which may be assigned from time to time.

16.3.2 Newsreaders

To read the news bulletins.

16.3.3 Newsreader-cum-Translator.

To translate news from English into regional languages and vice-versa and read news bulletins.

16.3.4 Musicians (Instrumentalists/Vocalists).

a) To perform shift duties as accompanists/vocalists according to the duty chart.

b) To give solo performances, as required.

c) To rehearse and record special items of music for special occasions.

d) To assist in the rehearsal and balancing of music programmes.

e) To look after musical instruments, if required for short periods.

f) To maintain texts in Notation of Musical compositions.

g) To participate and assist in the presentation of music lessons.

16.3.5 Tanpura Player (Musician/Instrumentslist).

a) To provide Tanpura accompaniment to Artists (during broadcasts and recordings.)

b) To look after the upkeep and maintenance of the Tanpuras (in places where there is no Caretaker).

16.3.6 Caretaker

For Music Instruments-declared a `dying cadre' after rationalisation and grouped with General Assistants/Copyists etc.

a) Maintenance and upkeep of musical instruments.

b) Maintenance of the Inventory of musical instruments.

c) Repairs.

d) Maintenance and issue of spares like strings, etc.

16.3.7 Music Composers.

a) To compose music for broadcast by orchestras or solo artists, by singers, by choral groups, etc.

b) To rehearse artists and to teach them new compositions.

c) To assist the Producer in the rehearsal and production of music programmes.

d) Any other duties which may be assigned from time to time.

16.3.8 Announcer-cum-Translators (*Indian Languages* in External Services Division)

a) To write announcements, presentation scripts for compered programme and broadcast them and to play back recordings of music and other programmes while announcing them.

b) To reply to listeners' letters.

c) To translate commentary, topical talk and Press Reviews from English to the language concerned and read these over the microphone.

d) To take part occasionally in Features, plays and special audience programmes etc.

e) To write presentation scripts and present compered Programmes for special audience programmes whenever necessary.

16.3.9 Translator-cum-Announcer (*Foreign languages* in the External Services Division).

a) To present programmes through announcements and to play back recordings.

b) To translate talks, commentaries and Press Review from English to the language concerned and voice the same on microphone.

c) Occasionally to interview foreigners visiting India for utilisation in programme.

d) To reply to listeners letters.

16.3.10 Drama Voices.

a) To take part/assist in production, rehearsal, recordings/plays/features, illustrated programmes, read scripts of stories, talks, etc. written by staff or outsiders, replies to listeners letters,

b) Maintain registers of dramatic programmes,

c) Assist in the rehearsal, recording and production of plays and features,

d) Occasionally to present programmes for special audiences if called upon to do so,

e) Make occasional announcements if required and

f) Any other duties which may be assigned from time to time.

16.4 SUMMARY

Smooth running of a radio station depends on its programme officers and artists. These programme officers and artists have a set of pre-determined functions and responsibilities to follow. Programme officers can be broadly categorized into Programme head, assistant

station director, audience research officer, programme executives, farm radio officer, extension officer, transmission executives, field reporter and farm radio reporter. Artists at a radio station can be broadly categorized into announcers, newsreaders, translators, musicians, tanpura players, caretakers, music composers, announcers and drama voices. In the next lesson we shall study about community radio, an emerging trend in broadcasting in India.

16.5 GLOSSARY

- **Minutes:** A summarized record of the proceedings at a meeting.
- **Specialist:** A person who concentrates primarily on a particular subject or activity; a person highly skilled in a specific and restricted field.
- **Tanpura:** A large four-stringed lute used in Indian music as a drone accompaniment.
- **Compere:** A person who introduces the performers or contestants in a variety show.
- **Accompanist:** a person who provides a musical accompaniment to another musician or to a singer.

16.6 SELF-ASSESSMENT QUESTIONS

1) Broadly categorize programme officers at a radio station and write about their respective duties.
2) Explain in detail about a programme executive of a radio station.
3) Describe the functions and duties of a transmission executive.
4) What do you understand by the term radio artists? Broadly categorize the artists of a radio station.
5) What are the functions and responsibilities of artists at a radio station?

16.7 SUGGESTED READINGS

1) Baruah, U. L. (2017). *This is All India Radio.* New Delhi: Publications Division Ministry of Information & Broadcasting.
2) Neelamalar, M. (2018). *Radio Programme Production.* PHI Learning Pvt. Ltd.
3) *Television and Radio.* (1985). United Kingdom: Independent Broadcasting Authority.

TV & Radio. (1978). United Kingdom: Independent Broadcasting Authority.

LESSON- 17

COMMUNITY RADIO STATIONS

OBJECTIVES

After reading this lesson, the readers should be able to understand basics about community radio stations and regulations in setting up a community radio in India.

Key objectives of this lesson are:

- To impart an understanding of community radio association
- To discuss about community radio's importance in knowledge sharing.
- To study the principals involved in operating a community radio.
- To analyse the content regulations and monitoring if a community radio.

STRUCTURE

17.1 INTRODUCTION

Community radio is when local people produce and broadcast their own programs and participate in operating the station. It is community space for people to meet and collaborate. It is extraordinarily fun and often life-changing. It typically leads to individual creativity and self-empowerment. In this lesson, we shall discuss about community radio protocols, knowledge sharing through community radio, principals involved in operating a community radio and regulations and monitoring of a community radio.

17.2 PRINCIPALS FOR OPERATING A COMMUNITY RADIO

An organisation desirous of operating a Community Radio Station (CRS) must be able to satisfy and adhere to the following principles:

1) It should be explicitly constituted as a 'non-profit' organisation and should have a proven record of at least three years of service to the local community.
2) The CRS to be operated by it should be designed to serve a specific well defined local community.
3) It should have an ownership and management structure that is reflective of the community that the CRS seeks to serve.
4) Programmes for broadcast should be relevant to the educational, developmental, social and cultural needs of the community.
5) It must be a Legal Entity i.e. it should be registered (under the registration of Societies Act or any other such act relevant to the purpose).

17.3 ELIGIBILITY TO START A COMMUNITY RADIO

1) The following types of organisations shall be eligible to apply for Community Radio licences:
    a) Community based organisations, which satisfy the basic principles listed above. These would include civil society and voluntary organisations, State Agriculture Universities (SAUs), ICAR institutions, Krishi Vigyan Kendras, Registered Societies and Autonomous Bodies and Public Trusts registered under Societies Act or any other such act relevant for the purpose. Registration at the time of application should at least be three years old.
    b) Educational institutions
2) The following shall not be eligible to run a CRS:
    a) Individuals;
    b) Political Parties and their affiliate organisations; [including students, women's, trade unions and such other wings affiliated to these parties.]
    c) Organisations operating with a motive to earn profit;
    d) Organisations expressly banned by the Union and State Governments.

17.4 CONTENT REGULATION & MONITORING FOR COMMUNITY RADIO

1) The programmes should be of immediate relevance to the community. The emphasis should be on developmental, agricultural, health, educational, environmental, social

welfare, community development and cultural programmes. The programming should reflect the special interests and needs of the local community.

2) At least 50% of content shall be generated with the participation of the local community, for which the station has been set up.
3) Programmes should preferably be in the local language and dialect(s).
4) The Permission Holder shall have to adhere to the provisions of the Programme and Advertising Code as prescribed for All India Radio.
5) The Permission Holder shall preserve all programmes broadcast by the CRS for three months from the date of broadcast.
6) The Permission Holder shall not broadcast any programmes, which relate to news and current affairs and are otherwise political in nature.
7) The Permission Holder shall ensure that nothing is included in the programmes broadcast which:
    a) Offends against good taste or decency;
    b) Contains criticism of friendly countries;
    c) Contains attack on religions or communities or visuals or words contemptuous of religious groups or which either promote or result in promoting communal discontent or disharmony;
    d) Contains anything obscene, defamatory, deliberate, false and suggestive innuendoes and half-truths;
    e) Is likely to encourage or incite violence or contains anything against maintenance of law and order or which promote-anti-national attitudes;
    f) Contains anything amounting to contempt of court or anything affecting the integrity of the Nation;
    g) Contains aspersions against the dignity of the President/Vice President and the Judiciary;
    h) Criticises, maligns or slanders any individual in person or certain groups, segments of social, public and moral life of the country;
    i) Encourages superstition or blind belief;
    j) Denigrates women;
    k) Denigrates children.
    l) May present/depict/suggest as desirable the use of drugs including alcohol, narcotics and tobacco or may stereotype, incite, vilify or perpetuate hatred against or attempt to demean any person or group on the basis of ethnicity,

nationality, race, gender, sexual preference, religion, age or physical or mental disability

8) The Permission Holder shall ensure that due care is taken with respect to religious programmes with a view to avoid:
    a) Exploitation of religious susceptibilities; and
    b) Committing offence to the religious views and beliefs of those belonging to a particular religion or religious denomination.

17.5 CONTENT EXCHANGE AND KNOWLEDGE SHARING FOR COMMUNITY RADIO

Indian government has been promoting content exchange especially radio programmes, good practices, case studies etc. to facilitate meaningful utilisation of available resources.

In past two years, Ministry of Information and Broadcasting has promoted EK duniya anEK awaaz (Edaa) - which is an audio and knowledge exchange portal for Community Radio practitioners in South Asia. Launched in year 2008, Edaa is completing 5 years on 1 September 2013.

Edaa is a web-based service that uploads the content of radio stations. Listening to Bhojpuri or Tamil from villages that don't appear even on Google maps, is such an exciting platform that even the ministry mentions this in its press release on future plans for Community Radio. Edaa is South Asia's biggest community-produced audio bank and hosts more than 2,900 radio programmes in 28 different South Asian languages categorised under 33 thematic areas. Another online space that supports learning and knowledge exchange between Community Radio stations in India is the Community Media Manch Platform. This platform supports collaborations, knowledge sharing and webinars that community radio stations and members of community media can undertake to share their experiences.

17.6 COMMUNITY RADIO ASSOCIATION

Community Radio Association was formed soon after the first Sammelan of CR stations in 2011 in Delhi. 58 stations expressed their interest in April 2011 for the formation of an association, wherein people working on the ground, can represent their communities and bring the voices of the voiceless to the fore. A paper was prepared and circulated among operational stations and a consensus on the role of the association, its structure, objectives etc. were arrived at. A society was registered in Delhi in July 2011, under the Societies Registration Act.

The salient features of the CRA are:

Only representatives of functional CR stations are its voting members

It has been registered as an All India Body with 12 members from nine different states signing the MOA

CRA works in a decentralized manner with Zonal and State Chapters. Each Chapter is empowered to organize workshops, events in line with CRA's objectives.

Even though CRA is only two years old its contribution and the role of its members in building an environment in favour of community Radio has been substantive.

CRA has been organizing events/workshops and has been sharing the experiences of its members across the globe. Some of its members have been representing the movement in international forums and reiterating the power of the Community radio. They have been supporting the growth of this movement in countries of both Europe and Africa.

Since CRA is a member-based organisation, all its members have been running community radio stations, in diverse regions and dialects, together they bring to the table a mine of resources and experience.

The strength of CRA is its network of experienced radio practitioners, who manifest the mandate of the Community Radio. This organisation is a true reflection of India's diversity, the multitude of languages and dialects, the varied topography and history. It is the only network in this sector, which is totally democratic and allows space for dissent, as there is nothing homogeneous about any community.

If we try to total up the experience of each member radio station- which are now 92 in all, then it would amount to a huge figure. The reach of this radio station together is to over 4 million people.

In 2013, CRA has organized two zonal workshops – South and West Zones and three state level experience sharing meets – Tamil Nadu, Maharashtra, Kerala. There have been workshops and meetings in all the zones, wherein members have come together and shared their challenges and achievements.

With a mission to promote, encourage, support and facilitate all functional and desirous Community Radio Stations in India and abroad, CRA has already hosted seven workshops for the Ministry of Information and Broadcasting. The seven Community Radio Awareness workshops were held at Dibrugarh, Ooty, Goa, Faridabad, Bhubaneswar, Kochi and Jaipur. The participation of the desirous Community Radio Operators was tremendous. The quality

and content of the workshops was well thought out, and inspiring. Over 90 percent of the participants gave Letters of Intent on the last day.

CRA led the entire campaign against the rise in the licence fee. Members of the organisation met with the Minister, Mr Kapil Sibbal, personally and handed over the petition that was signed by all its members. CRA worked closely with CRF on this issue, and also organised a meeting with the then Minister of Information and Broadcasting, Ms Ambika Soni, who took up the issue of the hike in fees with the concerned department.

Besides this:

Members of CRA, have been part of the working paper on the Community Radio Support Fund, and contributed extensively to the process.

CRA members are part of the screening committee for new stations.

CRA Members are also part of the Technical committee for Community Radio Support Scheme (CRSS) and their suggestions and inputs have been considered valuable.

CRA members were also the pioneers in developing a proposal for the incorporation of a Community Radio Peer Review to strengthen and support the operations of already existing community radio stations through cross learning and sharing. CRA member are also involved in the CR Policy review discussions.

Individual members of CRA have worked in various capacities as facilitators, mentors, trainers for other organizations involved in the CR space namely, CEMCA, Ministry of Science and Technology, UNESCO.

CRA is working on different training modules for capacity building in CR and disaster management, sustainability, knowledge sharing, mobilizing communities for health care, collaboration on non-formal learning and education programmes.

CRA member stations have also won awards for their work in integrating technology with Community Radio and several ongoing research are being conducted on the same

CRA member stations have been invited as speakers to several national & international forums like Bangladesh Community Radio Forum (25–27 February 2012), Asia-Pacific Institute for Broadcasting Development (AIBD) 2012, Asia Media Summit (29 May 2012), Cyprus Community Media Center, Nocosia (January 28, 2013, Radiodays Europe radio conference in Berlin 18–19 March 2013, International Association of Women in Radio & Television, seminar on Community Radio & Democracy in South Asia (5 March 2013)

17.7 SUMMARY

Community radios are an emerging trend in broadcasting in India. Community radios are known for their role in acting as development media owing to their relevance to local issues and concerns. Community radios can be started by educational institutions, non-profit organizations, local communities and other similar organizations to use media as a tool for development. Community radio stations are not meant to be used for profit. In the next lesson we shall discuss in detail about local radio which comprises of community radio and campus radio.

17.8 GLOSSARY

- **Community Radio:** Community radio usually is a short-range, not-for-profit radio station or channel that caters for the information needs of people living in a particular locality, in the languages and formats that are most adapted to the local context.
- **CSR:** Corporate social responsibility is a type of international private business self-regulation that aims to contribute to societal goals of a philanthropic, activist, or charitable nature by engaging in or supporting volunteering or ethically-oriented practices.
- **ICAR:** The Indian Council of Agricultural Research (ICAR) is an autonomous organisation under the Department of Agricultural Research and Education (DARE), Ministry of Agriculture and Farmers Welfare, Government of India.
- **Dialect:** A particular form of a language which is peculiar to a specific region or social group.

17.9 SELF-ASSESSMENT QUESTIONS

1) What are the principals involved in operating a community radio?
2) What is the main purpose of setting up a community radio? Why do you think community radio should not be run for profit?
3) How is content regulated and monitored on community radio?
4) Write about community radio association in detail.
5) Who is eligible to start a community radio and why?

17.10 SUGGESTED READINGS

1) *Community Radio in South Asia: Reclaiming the Airwaves.* (2020). United States: Taylor & Francis.

2) *Community Radio in the Twenty-first Century.* (2012). Austria: Peter Lang.

3) Mark Raboy, S. B. (2008). *Broadcasting, Voice, and Accountability: A Public Interest Approach to Policy, Law, and Regulation.* Russia: University of Michigan Press.

Vinod Pavarala, K. K. (2007). *Other Voices: The Struggle for Community Radio in India.* India: SAGE Publications.

LESSON- 18

LOCAL RADIO

OBJECTIVES

STRUCTURE

18.1 INTRODUCTION

Local radio is a form of radio intended to meet the requirements of small segments of people. AIR, as a national broadcaster has been broadcasting programmes on national and regional levels since its inception. However, India being a diverse country with numerous languages and innumerable dialects calls for a more localized media. Local radio is an answer to this requirement. In this lesson we shall discuss about local radio, its concepts, objectives, need and its role in acting as a change agent. We shall also discuss history of community radio and also a brief overview of campus radio.

18.2 LOCAL RADIO

Local radio is a radio innovation where all programmes are run in local languages. Community radio is an extension of local radio. While local radio is run by the government, community radio is run by non-governmental organizations.

18.2.1 Concept and Objectives of Local Radio

Local radio aims at the following objectives:

1) To involve local talent
2) To encourage native culture and tradition
3) To make people part of nation building
4) To bring interior India into mainstream
5) To fight against social stigma
6) To disseminate information in believable way
7) To make use of developmental schemes and in turn make them part of development

18.2.2 Need for Local Radio

Local radio has innumerable ways of supporting the society at large. Few important features of local radio that makes it a dire necessity in the society are:

1) They involve local people
2) They protect the culture and tradition of local people
3) They make local people part of nation development
4) They promote Jatiya Jeevana Sravanthi
5) They fight against social stigma
6) Local radio is run in their own language, by their own men and in a believable way
7) They spread awareness about welfare schemes implemented by Government.

18.2.3 Local Radio as a Change Agent

Local radio acts as a change agent due to the following elements:

1) Accessibility
2) Suitability
3) Credibility
4) Believability
5) Responsibility
6) Only option for locals
7) People's voice

8) Democratic norms
9) Channel for development

Some of the reasons that support radio's role as a change agent are:

1) Radio includes migrants
2) It is a very suitable medium
3) It is an official source
4) People believe in radio
5) There are no imaginary issues on radio
6) Radio is the only option in rural India
7) Radio survives on opinion of public
8) Radio has its own code of conduct
9) Radio acts as a development media

18.3 COMMUNITY RADIO

Community radio is a kind of local radio that is run by non-governmental organizations. 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.

18.3.1 History of Community Radio in 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.

A UNESCO sponsored workshop, hosted by an Andhra Pradesh NGO, Deccan Development Society (DDS) from July 17–20, 2000 in Hyderabad issued the 'Pastapur Initiative' on community radio that urged the government to take its intentions of freeing broadcasting from state monopoly to its logical conclusion, by making media space available not only to private players but also to communities. This landmark document urged the government to create a three-tier structure of broadcasting in India by adding non-profit community radio to the already existing state-owned public radio and private commercial radio.

Simultaneously, several initiatives had already started working on community radio in terms of production and dissemination of participatory programming. In South India, Deccan Development Society worked with Dalit women's collectives to start Sangam Radio, the programmes for which were made by the community, but were 'narrowcast', i.e. played back to the community over cassette players at group meetings. Another landmark initiative was jointly set up by VOICES and MYRADA - called Namma Dhwani (Our Voices), where programmes were produced by communities in and around the village of Budikote (about 100 kilometers from Bangalore), and were distributed over the nearest All India Radio station and subsequently over the local cable network. In the west, Kutch Mahila Vikas Sanghatan, a civil society group in Gujarat worked with the women in Kutch District to produce programmes on local developmental and cultural issues, and started broadcasting on the nearest All India Radio Station.

In the northern part, Alternative for India Development made programmes with community members in Garhwa block of Jharkhand, and broadcast programmes over the Daltonganj All India Radio Station. Community Groups in Chamba, and Rudraprayag, both in Uttarakhand started producing participatory programmes and broadcast over the World Space Satellite Radio network. Kumaon Vani radio station was set up by The Energy and Resources Institute in March 2010 in Nainital district of Uttarakhand with the aim of bringing together communities across several villages in the Kumaon region. It was established to use radio as a tool to promote sustainable development among the local farming community. It broadcasts content that is relevant to the people of the area that is overlooked by commercial media.

By early 2003, the government of India released the first set of community radio guidelines drafted by Dr. Hari Om Srivastava and also the technology to be used but unfortunately, restricted eligibility to educational institutions only. Marginalized and voiceless communities continued to remain outside the ambit of the then released community radio policy guidelines. Anna FM was India's first campus "community" radio station. And, as per the latest Community Radio Policy Guidelines (2006), Anna FM falls well within the definition of Community Radio. Launched on 1 February 2004, it is run by the Education and Multimedia Research Centre (EM²RC). Programmes are produced by students as well as community. Anna university station was launched on 1 February 2004 Commonwealth of learning and UNESCO sponsored an international meet on community radio at Anna university in December 2004 . All the applicants to CR in India as well as representatives from 13 countries attended. Government of India studied the working of this station along with the change of ruling party in India. Several of the lessons learnt at Anna CR were incorporated in the Policy document in 2006. Practitioners and community radio advocates continued to push the government towards expanding the mandate of the community radio sector to include communities living in rural, remote and hilly areas of the country.

On 16 November 2006, the government of India implemented new Community Radio Guidelines, which permit NGOs, educational institutions and agricultural institutions to own and operate community radio stations. By 30 November 2008, there were 38 operational community radio stations in the country. Of these, two are run by NGOs and the rest by educational institutions.

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 went on the air at 11:00 am. Therefore, Sangham Radio, based on the policy guidelines, is second community radio station of India. Sangham Radio, which broadcasts on 90.4 MHz, is licensed to the Deccan Development Society (DDS) (an NGO which works with women's groups in approximately 75 villages in Andhra Pradesh). The community radio station is managed by "General" Narsamma and Algole Narsamma.

Under the 2006 community radio policy, any not-for-profit "legal entity"—except individuals, political parties (and their affiliates), criminal and banned organizations—can apply for a CR license. The licence entitles them to operate a 100-watt (Effective Radiated Power) radio station, with a coverage area of approximately a 12-km radius. A maximum

antenna height of 30 meters is allowed. Community radio stations are expected to produce at least 50 percent of their programmes locally, as much as possible in the local language or dialect. The stress is on developmental programming, although there is no explicit ban on entertainment. News programmes are banned on community radio in India (as they are on commercial FM radio). However, the government has clarified that certain categories of news are permitted on radio, including sports news and commentaries, information on traffic and weather conditions, coverage of cultural events and festivals, information on academic events, public announcements pertaining to utilities such as electricity and the water supply, disaster warnings and health alerts. Five minutes of advertising per hour is allowed on community radio. Sponsored programs are not allowed, except when the program is sponsored by the government at the local or state level.

In a given license area, the Wireless Planning and Coordination (WPC) wing of the MoCIT reserves only three frequencies for community radio. This reservation is informally done and the WPC does not have any official communication or guidelines with respect to spectrum allocation for community radio in the FM band. The WPC follows a channel separation of 800 kHz in India. This means that if a radio station is allotted 90.4 MHz in a given license area, then the next available frequency is 91.2 MHz. Further, once a radio station is allotted a frequency by the WPC, that particular frequency is blocked for a radius of 100 kilometers.

Activists and community workers from across the country have banded together under the aegis of the Community Radio Forum of India to coordinate training and support for community radio stations, and to work for a more proactive community radio policy. The Community Radio Forum, India, was registered as a Society and Trust on 26 February 2008. Members from the Community Radio Forum participate in screening committee meetings to screen potential applicants, and the organization is also recognized as a national level self-regulatory body in the Draft Broadcast Bill as published by the Government of India.

By 1 July 2010, the Ministry of Information and Broadcasting announced that 715 applications for CR licenses had been received, including 104 under the old campus-radio guidelines. 231 Letters of Intent were issued (including 63 under the old guidelines). Grant of Permission Agreements were signed with 102 applicants, and 68 community radio stations were on the air. 107 applications were rejected, and 377 applications were being processed. By 1 February 2012, the Ministry of Information and Broadcasting had received a total of 991 community radio licence applications. Grant of Permission Agreements had been signed with 161 applicants and 126 community radio stations were on air.

From April 1, 2012, the Ministry of Communications and IT has hiked the spectrum fees to Rs. 91,000 - a fivefold increase from the previous annual fee of Rs. 19,700. This move provoked widespread protest from functional community radio stations, advocacy bodies like Community Radio Forum and Community Radio Association of India, and even the Secretary, Ministry of Information and Broadcast has gone on record to say that his Ministry's views were not sought before the decision was taken. He also expressed concern that many organizations would find it impossible to pay the increased spectrum royalty charges. The Community Radio Forum has already boycotted one policy consultation held by the Ministry of Information and Broadcasting, on 9th and 10 May. Several community radio stations also observed a 'Day of Silence' on 9 May, where the spectrum fee hike was announced, protest songs were broadcast, community views were invited, and transmission was switched off for the rest of the day. After pressure from various stakeholders, the Ministry for Information and Communication Technology (MoCIT) announced that the spectrum fee and royalty charges would be rolled back to annual fee of Rs. 19,700. The spectrum fee was Rs. 19,700 annually, till September 2013, at which time the Ministry was to re-examine the matter.

18.3.2 Community Radio and Commonwealth Educational Media Centre for Asia (CEMCA)

From 2007 onwards, with CEMCA being the implementing agency and DR R Sreedher as its director, the Ministry of Information and Broadcasting, Government of India organized more than 40 awareness workshops throughout the country to create an atmosphere for getting more organisations to apply for a license for CR. By June 2012, the government had received more than one thousand applications and 400 of them got the Letters of intent LOI. While the initial phase saw more stations in educational campuses an analysis of the 400 LOIs brings out the fact that two thirds of the LOIs have gone to civil society organisations. They find it difficult to launch the station, due to lack of funds, training, human resources and the difficulty in getting the frequency cleared by the WPC wing of the Ministry of Telecommunications. In July 2014, Government of India announced a scheme to support community radio stations and allocated ₹100 crore for this purpose.

18.4 CAMPUS RADIO

Campus radio (also known as college radio, university radio or student radio) is a type of radio station that is run by the students of a college, university or other educational

institution. Programming may be exclusively by students, or may include programmers from the wider community in which the radio station is based. Sometimes campus radio stations are operated for the purpose of training professional radio personnel, sometimes with the aim of broadcasting educational programming, while other radio stations exist to provide alternative to commercial broadcasting or government broadcasters.

Campus radio stations are generally licensed and regulated by national governments, and have very different characteristics from one country to the next. One commonality between many radio stations regardless of their physical location is a willingness—or, in some countries, even a licensing requirement—to broadcast musical selections that are not categorized as commercial hits. Because of this, campus radio has come to be associated with emerging musical trends, including genres such as punk and new wave, alternative rock, indie rock and hip hop, long before those genres become part of the musical mainstream. Campus radio stations also often provide airplay and promotional exposure to new and emerging local artists.

Many campus radio stations carry a variety of programming including news (often local), sports (often relating to the campus), and spoken word programming as well as general music. Often the radio format is best described as a freeform, with much creativity and individualism among the disc jockeys and show hosts. Some of these radio stations have gained critical acclaim for their programming and are considered by the community in which they are embedded to be an essential media outlet.

Although the term campus radio implies full-power AM or FM transmission over the air, many radio stations experiment with low-power broadcasting, closed circuit or carrier current systems, often to on-campus listeners only. Some radio stations are distributed through the cable television system on cable FM or the second audio program of a TV radio station. Some universities and colleges broadcast one or more Internet radio feeds—either instead of, or in addition to a campus radio station—which may differ in radio formats significantly from licensed traditional campus radio.

On February 2, 2004, Anna University in Chennai unveiled the country's first campus radio station, Anna FM. Radio Ujjas in Kutch (in the western state of Gujarat) is one such CR and gets its funding from the United Nations Development Programme (UNDP) and the Central Government. Similarly a community based radio programme titled Panchayat Vani (People's Voice) was recently broadcast on All India Radio (AIR), Darbhanga, Bihar. The campus radio station Gyanvaani has also been licensed.

Sam Higginbottom University of Agriculture, Technology and Sciences established a community radio station, Radio Adan (90.4 Mhz) in 2008, which brings together experts, students, farmers and local population, through various popular programmes, focussing on agriculture, education, employment, women empowerment, child marriage, health and culture.

Pune University is the first university in the state of Maharashtra to have an FM radio station. The University of Pune's FM Radio inaugurated on May 1, 2005, has been named as Vidyavani. It covers a wide range of subjects, focusing specifically on the requirements of students of various departments and affiliated colleges. It reaches an area around the campus within eight-km radius.

The Government policy to permit educational institutions to have their own FM Channels at low frequency levels emerged in mid December 2002, as a result of years of campaigning by activists and a strongly worded Supreme Court judgment directing the opening up of the airwaves.

A unique experiment in using media technologies, especially radio, for development and empowerment of marginalized, rural communities is the community radio initiative "Chalo Ho Gaon Mein" a programme that is broadcast once a week on AIR Daltonganj in the Palamu district of Jharkhand, eastern India. This radio programme is supported by the National Foundation for India and produced by Community representatives, of Alternative for India Development (AID), a non-governmental organization. School of Communication of Manipal also has its own campus radio.

According to the terms of the campus broad license, a number of aspects are disallowed from broadcasts. This includes anything that offends good taste or decency, contains criticism of friendly countries, contains an attack on religion, contains anything obscene, defamatory, false and suggestive innuendos and half-truths, likely to encourage or incite violence, contains anything affecting the integrity of the nation, criticizes, maligns or slanders any individual in person, encourages superstition or blind belief, denigrates women, denigrates children, or presents or depicts or suggests as desirable the misuse of drugs, alcohol, narcotics, and tobacco.

18.5 SUMMARY

Local radio is an emerging trend in broadcasting in the world. India embraced local radio decades ago and is now emerging with new trends like community radio and campus radio.

Local radio acts a change agent in the country. Community radio gradually took shape in India and is now a major tool for development in various sections of life. Educational institutions took after the concept of community radio and started campus radios to act as local radio solely for the needs of the institution. In next lesson we shall discuss about other emerging trends in radio in India.

18.6 GLOSSARY

- **Social Stigma:** Social stigma is the term given when a person's social, physical or mental condition influences other people's views of them or their behaviour towards them.
- **Airwaves:** The radio frequencies used for broadcasting.
- **Accessibility:** The quality of being easy to obtain or use.
- **Suitability:** The quality of being right or appropriate for a particular person, purpose, or situation.
- **Believability:** The quality of being able to be believed; credibility.

18.7 SELF-ASSESSMENT QUESTIONS

1) What do you understand by the term local radio? Explain how and why local radio can act as a change agent.
2) Write a detailed note about history of community radio in India.
3) What is campus radio? How do you think campus radios act as development media?
4) Do your college have a campus radio? Do you think campus radio is necessary in educational institutions?

18.8 SUGGESTED READINGS

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3) *Mass Media.* (2009). India: Publications Division, Ministry of Information and Broadcasting, Government of India.
4) Parveen Pannu, Y. A. (2010). *ICT4D Information Communication Technology for Development.* India: I.K. International Publishing House Pvt. Limited.

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LESSON- 19

EMERGING TRENDS IN BROADCASTING IN INDIA

OBJECTIVES

After reading this lesson, the reader should be able to gain a basic understanding of emerging trends in broadcasting in India.

Key objectives of this lesson are:

To impart an understanding about emerging trends in broadcasting in India

To discuss the concept of digital radio

To study in-detail about amateur radio in India

To analyse the advantages of HAM radio.

To study about podcasts

To discuss about software defined radio

To briefly overview cognitive radio

STRUCTURE

19.1 Introduction

Radio broadcasting in India is an every evolving field with new trends always emerging under its canopy. Some of the latest trends in radio broadcasting are digital radio, podcasts, software defined radio and cognitive radio. Amateur radio hobby, a part of early years of radio broadcasting, is now gaining growth in metropolis to act as a development media in times of emergency situations. In this lesson we shall discuss in detail about all these emerging trends in radio.

19.2 Digital Radio

Digital radio is the transmission and reception of sound processed into patterns of numbers, or "digits" – hence the term "digital radio." In contrast, traditional analog radios process sounds into patterns of electrical signals that resemble sound waves.

Digital radio reception is more resistant to interference and eliminates many imperfections of analog radio transmission and reception. However, there may be some interference to digital radio signals in areas that are far away from a station's transmitter. FM digital radio can provide clear sound comparable in quality to CDs, and AM digital radio can provide sound quality equivalent to that of standard analog FM. FM digital radio also allows broadcasters to offer additional audio channels to the public, using their existing FM frequency.

In addition to audio broadcasts, digital radio offers simultaneous data services to listeners. For example, information about music may be displayed on the receiver's screen when the music is playing. You also can program your digital radio receiver to display weather updates, traffic reports and other news.

The key breakthrough or key feature in digital radio transmission systems is that they allow lower transmission power, they can provide robustness to noise and cross-talk and other forms of interference, and thus allow the same radio frequency to be reused at shorter distance. Consequently, the spectral efficiency (the number of phone calls per MHz and base station, or the number of bit/s per Hz and transmitter, etc.) may be sufficiently increased. Digital radio transmission can also carry any kind of information whatsoever — just as long at it has been expressed digitally. Earlier radio communication systems had to be made expressly for a given form of communications: telephone, telegraph, or television, for example. All kinds of digital communications can be multiplexed or encrypted at will.

All India Radio (AIR), the public service broadcaster in India, has adopted the international DRM (Digital Radio Mondiale) standard for the digital terrestrial radio transmissions in the

MW and SW bands. DRM allows for multiple FM-like radio services plus associated data such as multi-lingual news articles to be carried in place of or as an extension to the former analogue radio services, while maintaining the large-area service coverage of the AM bands.

35 MW transmitters of AIR, of power ranging from 20 kW to 1000 kW, continue to operate in DRM – 2 of these in pure DRM and 33 in simulcast. 25 of these are working in pure DRM daily for one hour. 2 SW transmitters are also carrying services on DRM.

19.3 Amateur Radio

Amateur Radio is a scientific activity popularly known as "Ham Radio". Amateur radio operators use two way radio stations and communicate with others similarly authorized using various modes of communication like voice, morse code, computers, internet etc. The things that amateur radio operators do with their radios are as diverse as the people themselves. The advanced amateur radio communication techniques include Automatic Position Reporting Systems using GPS information, Internet linking of Repeater stations, Interface with internet for exchange of emails, images etc as well as visual communication modes.

Amateur (HAM) Radio is both a Hobby activity and Service. It is an activity of self learning, inter-communication & technical investigation carried on the duly authorized persons (i.e. Amateur Radio Operators) for a personal aim and without pecuniary interest. There are over 30 lakh people all over the world who pursue this activity in their free time, in India we have around 15000 amateur radio operators.

Any individual above the age of 12 can become an Amateur Radio operator-no matter what age, gender or physical ability. Amateur Radio Operators have to qualify in an examination conducted by Ministry of Communications & IT, Government of India and obtain license for operating / possessing a Radio Station.

A wireless communication network through Amateur Radio is one of the most effective and alternate medium of communication and can play a significant role in providing reliable communications when other normal communications fail. The skills of the trained amateur radio operator can be used for public service in times of need and emergencies. In numerous occasions, under extreme circumstances, very efficient amateur radio communication and humanitarian assistance was provided by Hams particularly during Uttarkhand Floods 2012, Aila cyclone-2009, Krishna floods-2009, Indian Ocean Tunami-2004, Gujarat Earthquake-2001, Orissa Super Cyclone-1999 and many other natural / man-made calamities in the country.

The hobby of Amateur Radio operation was introduced in India by some officers of the Signal Corps who were issued the Amateur licences and an Amateur Radio club was also started by them at Mhow,Madhya Pradesh which is the head quarters for the Signal Corps of the Indian Army. In the 1920's and 1930's, Government of India gave Amateur Radio licences mostly to persons from the Indian Army.

A few civilians also managed to get licences in the 30's. In 1942 some of the civilian Amateur Radio operators took part in the Quit India movement and their licenses were cancelled. After independence a few Defence personnel and civilians managed to get an amateur radio licences and the hobby started growing.

The first Indian amateur radio operator in India was Amarendra Chandra Gooptu (callsign 2JK), licensed in 1921. Later that year, Mukul Bose (2HQ) became the second ham operator, thereby introducing the first two-way ham radio communication in the country. By 1923, there were twenty British hams operating in India. In 1929, the call sign prefix VU came into effect in India, replacing three letter call signs.

In 1954 a group of them founded the Amateur Radio Society of India and registered it in Delhi. This Society continued to function from this address till the late 80's, when the club and office were transferred to Chennai.

In 1995 Amateur Radio Society of India and the Federation of Amateur Radio Society of India(FARSI) were merged retaining only the name of (ARSI). After the merger, the Amateur Radio Society moved to Mumbai and functioned at the premises of VU2ST, Saad Ali, till he was alive. After his demise the society functioned from Mumbai and Delhi.

ARSI promotes the general advancement and diffusion of knowledge of science and practice of Electronics and Radio Communication and to facilitate these aims,coordinates with the Governmental Agencies like the WPC with regards to rules and regulations.

Many changes in the rules and regulations and the allocation of spectrum to Indian Radio Amateurs has come about due to the constant interaction by ARSI with the governmental agencies.

19.3.1. Advantages of HAM Radio

Amateur Radio operators in their free time use their radio stations and conduct two-way communication and exchange cultural, personal, technical information with other amateurs not only within India but all over the world. The two-way communications using Radio

Transmitters, receivers, antennae can be either through Voice, Morse Code, Digital (Video & Data) or through Satellites.

HF radios hams can talk to other hams in literally any part of the globe.

VHF and UHF transceivers hams enjoy extremely reliable communications within their local community.

Friendship – Make friends all over the world.

QRP - Communicating with "very low power" is a challenge that many hams enjoy. QRP is usually practiced on the HF bands.

There are several Digital Amateur Radio communication techniques that allow Hams to exchange text messages, send emails or even connect to Internet.

Amateur Television - It's just like real television because it is real television.

Slow Scan TV - Send pictures around the world for little or no cost.

Contests & Awards - You can put your radio operating skills up against other hams and teams of hams and win awards.

Home brewing - You can make your own transmitters, receivers, antennas etc. and enjoy the hobby.

Emergency and other volunteer services - Floods, landslides, tsunamis, earthquakes, cyclones, accidents (Rail / Road / Air). Whenever 'normal' communications go out, hams are ready to use their radios to provide emergency communication services to their communities.

Fox Hunt – Game of finding hidden transmitters.

Satellite communications - Hams operate using their own satellites for world wide communication using Walkie-Talkies or Base Stations.

19.4 Podcasts

A podcast is an episodic series of spoken word digital audio files that a user can download to a personal device for easy listening. Streaming applications and podcasting services provide a convenient and integrated way to manage a personal consumption queue across many podcast sources and playback devices.

A podcast series usually features one or more recurring hosts engaged in a discussion about a particular topic or current event. Discussion and content within a podcast can range from carefully scripted to completely improvised. Podcasts combine elaborate and artistic sound production with thematic concerns ranging from scientific research to slice-of-life journalism.

Many podcast series provide an associated website with links and show notes, guest biographies, transcripts, additional resources, commentary, and even a community forum dedicated to discussing the show's content.

The cost to the consumer is low. While many podcasts are free to download, some are underwritten by corporations or sponsored, with the inclusion of commercial advertisements. In other cases, a podcast could also be a business venture supported by some combination of a paid subscription model, advertising or product delivered after sale.

People are motivated to create a podcast for a number of reasons. The podcast producer, who is often the podcast host as well, may wish to express a personal passion, increase professional visibility, enter into a social network of influencers or influential ideas, cultivate a community of like-minded viewership, or put forward pedagogical or ideological ideas (possibly under philanthropic support).

Because podcast content is often free or, at the very least, affordable for the average podcast consumer, podcasting is often classified as a disruptive medium, which is adverse to the maintenance of traditional revenue models. Long-running podcasts with a substantial back catalogue are amenable to binge consumption.

Podcasting in India began around 2005 when Apple updated iTunes to support podcasts, and Abhishek Kumar and Aditya Mhatre started Indicast. In 2006, there were approximately 3000 Indian podcasters offering programmes in English, Hinglish, and Tamil. Many of the current Indian podcasts cater to the Non-Resident Indian (NRI) community as podcasting inside India is still on the rise. Though China and the USA are currently the most advanced podcast markets, industry experts predict that podcasting growth will be exponential in the next few years in India, making it an economically viable standalone industry.

In 2018, there was a 60% growth of podcast listeners. It was reported that about 40 million among 500 million Internet users are podcast listeners. There has been a growth of podcast channels. Aawaz.com, O2Pod Collective (Bengaluru), Saavn and Audiomatic are some indigenous podcasting platforms used by creators and listeners.

19.5 Software Defined Radio

Software-defined radio (SDR) is a radio communication system where components that have been traditionally implemented in hardware (e.g. mixers, filters, amplifiers, modulators/demodulators, detectors, etc.) are instead implemented by means of software on a personal computer or embedded system. While the concept of SDR is not new, the rapidly

evolving capabilities of digital electronics render practical many processes which were once only theoretically possible.

A basic SDR system may consist of a personal computer equipped with a sound card, or other analog-to-digital converter, preceded by some form of RF front end. Significant amounts of signal processing are handed over to the general-purpose processor, rather than being done in special-purpose hardware (electronic circuits). Such a design produces a radio which can receive and transmit widely different radio protocols (sometimes referred to as waveforms) based solely on the software used.

Software radios have significant utility for the military and cell phone services, both of which must serve a wide variety of changing radio protocols in real time. In the long term, software-defined radios are expected by proponents like the Wireless Innovation Forum to become the dominant technology in radio communications. SDRs, along with software defined antennas are the enablers of the cognitive radio.

A software-defined radio can be flexible enough to avoid the "limited spectrum" assumptions of designers of previous kinds of radios, in one or more ways including:

Spread spectrum and ultrawideband techniques allow several transmitters to transmit in the same place on the same frequency with very little interference, typically combined with one or more error detection and correction techniques to fix all the errors caused by that interference.

Software defined antennas adaptively "lock onto" a directional signal, so that receivers can better reject interference from other directions, allowing it to detect fainter transmissions.

Cognitive radio techniques: each radio measures the spectrum in use and communicates that information to other cooperating radios, so that transmitters can avoid mutual interference by selecting unused frequencies. Alternatively, each radio connects to a geolocation database to obtain information about the spectrum occupancy in its location and, flexibly, adjusts its operating frequency and/or transmit power not to cause interference to other wireless services.

Dynamic transmitter power adjustment, based on information communicated from the receivers, lowering transmit power to the minimum necessary, reducing the near-far problem and reducing interference to others, and extending battery life in portable equipment.

Wireless mesh network where every added radio increases total capacity and reduces the power required at any one node. Each node transmits using only enough power needed for the

message to hop to the nearest node in that direction, reducing the near-far problem and reducing interference to others.

19.6 Cognitive Radio

A cognitive radio (CR) is a radio that can be programmed and configured dynamically to use the best wireless channels in its vicinity to avoid user interference and congestion. Such a radio automatically detects available channels in wireless spectrum, then accordingly changes its transmission or reception parameters to allow more concurrent wireless communications in a given spectrum band at one location. This process is a form of dynamic spectrum management.

In response to the operator's commands, the cognitive engine is capable of configuring radio-system parameters. These parameters include "waveform, protocol, operating frequency, and networking". This functions as an autonomous unit in the communications environment, exchanging information about the environment with the networks it accesses and other cognitive radios (CRs). A CR "monitors its own performance continuously", in addition to "reading the radio's outputs"; it then uses this information to "determine the RF environment, channel conditions, link performance, etc.", and adjusts the "radio's settings to deliver the required quality of service subject to an appropriate combination of user requirements, operational limitations, and regulatory constraints".

Some "smart radio" proposals combine wireless mesh network—dynamically changing the path messages take between two given nodes using cooperative diversity; cognitive radio—dynamically changing the frequency band used by messages between two consecutive nodes on the path; and software-defined radio—dynamically changing the protocol used by message between two consecutive nodes.

Cognitive Radio (CR) can sense its environment and, without the intervention of the user, can adapt to the user's communications needs. In theory, the amount of spectrum is infinite; practically, for propagation and other reasons it is finite because of the desirability of certain spectrum portions. Assigned spectrum is far from being fully utilized, and efficient spectrum use is a growing concern; CR offers a solution to this problem. A CR can intelligently detect whether any portion of the spectrum is in use, and can temporarily use it without interfering with the transmissions of other users.

Examples of applications include:

The application of CR networks to emergency and public safety communications by utilizing white space.

The potential of CR networks for executing dynamic spectrum access.

Application of CR networks to military action such as chemical biological radiological and nuclear attack detection and investigation, command control, obtaining information of battle damage evaluations, battlefield surveillance, intelligence assistance, and targeting.

They are also proven to be helpful in establishing Medical Body Area Networks which can be utilized in omnipresent patient monitoring that aids in immediately notifying the doctors regarding vital information of patients such as sugar level, blood pressure, blood oxygen and electrocardiogram (ECG), etc. This gives the additional advantage of reducing the risk of infections and also increases the patient's mobility.

Cognitive radio is practical also to wireless sensor networks, where packet relaying can take place using primary and secondary queues to forward packets without delays and with minimum power consumption.

19.7 Summary

Radio in India is an ever evolving field. Radio's impact as a mass media is still relevant after almost a century of its origin in India. Radio, like every other mass media, is turning digital to expand its reach for its audience. Amateur radio as a hobby is also increasing in 21st century for various purposes like education, entertainment, development as well as to act as a reliable media in times of emergency situations. In the next lesson we shall discuss in-detail the terminology used in radio.

19.8 Glossary

Ham: The term "ham" as a pejorative nickname for amateur radio operators was first heard in 1909 by operators in commercial and professional radio communities. The word was subsequently embraced by the operators, and stuck.

Streaming: Streaming refers to any media content – live or recorded – delivered to computers and mobile devices via the internet and played back in real time. Podcasts, webcasts, movies, TV shows and music videos are common forms of streaming content.

Protocol: A set of rules governing the exchange or transmission of data between devices.

19.9 Self-Assessment Questions

Write a brief description about digital radio.

What do you understand by the term amateur radio? What are the practical uses of amateur radio according to you?

Are you a frequent listener of podcasts? Why do you think podcasts are gaining popularity with youngsters?

Can podcasts be used for development purposes? If yes, then how?

Write few words about software defined radio and cognitive radio.

What are the new trends that you think that can enter broadcasting in India?

19.10 Suggested Readings

Articles on Amateur Radio in India, Including: Hamsat, Congress Radio, Wireless and Planning and Coordination Wing, Amateur Radio Call-Signs of India,. (2011). Hephaestus Books.

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LESSON- 20

RADIO TERMINOLOGY

OBJECTIVES

After reading this lesson, the reader should be able to understand basic radio terminology.

Key Objectives of this lesson are:

- To list out key terminology used in broadcasting.
- To briefly discuss jargon and terms of radio usage

STRUCTURE

20.1 INTRODUCTION

Broadcasting, is a field that has a language of its own. It is always a good practice to know the language of the locale while entering a locality. Similarly, if one wants to fully understand broadcasting, one should know the basic terminology used in broadcasting. In the lesson we shall discuss key jargon of radio used internationally and nationally. Radio terminology is listed in alphabetical order to act as a one-place glossary for radio.

20.2 TERMINOLOGY OF RADIO

1) **A.A.A.A.** – American Association of Advertising Agencies.
2) **AC Adult** – A radio program format known as Adult Contemporary music, featuring rock and roll and pop music.
3) **Acoustics** – How clearly the sound is heard in a room; the quality of sound in a given area.
4) **ADAT** – Audio Digital Tape, used in digital systems.

5) **Actives** – Radio listeners who actively contact radio stations for requests or contests. Passive listeners, however, are those people who do not generally interact with the radio stations.

6) **Actuality** – A term historically used in broadcasting that is now referred to as a sound byte.

7) **Adjacencies** – Programs following or preceding a certain time period; commercials that are purchased to be specifically aired immediately before or immediately after a feature or program such as a sportscast or news program.

8) **Ad-libbing** – Words, music, or actions uttered, performed, or carried out extemporaneously in one's own words, without a give script.

9) **Advertising agency** – A service business that helps create, plan and place advertising, or ads, and promotions for radio and TV as well as print advertising. Agencies often handle overall branding and marketing.

10) **Aircheck** – Copy of a broadcast that is recorded on magnetic tape or digitally.

11) **Air shift** – The length of time that a DJ works on the air at any given time. Average air shifts are four hours but could be up to six hours long.

12) **Airwaves** – The medium through which radio or television signals are transmitted. Airwaves are also known by the terms spectrum or the electromagnetic spectrum. Airwave signals travel through the air, unlike the signals transmitted by telephone or cable wires. Almost every American household has a television that receives free programming, which is sent over the airwaves by local TV or radio stations.

13) **A.M.** – The amplitude modulation, A.M. broadcasting signals, considered the standard radio band; meaning the amplitude of a carrier wave which is varied according to certain characteristics of a modulating signal.

14) **Amplifier** – The ability to amplify or make sound louder or softer through an electronic devise that is adjustable.

15) **Analog** – A type of waveform signal with characteristics that are continuous as opposed to pulsed, containing data or information such as voice, data or image. Analog was standard broadcasting or the way old record players worked before the onset of CD's. It is the storage or transmission of information by a variable physical means, such as a shift in voltage sent through the electromagnetic spectrum or the vibrations of against patterns inside the grooves of a vinyl disc, to create physical (analogous) patterns of pictures or sounds. Analog signals have unpredictable height, or amplitude, and width, frequency, and can vary infinitely over a given range.

16) **Announcer** – An on-air talent personality who is the person with the job to read scripts or announcements on radio or television. (Sick jockey, news anchor, sports announcer, etc.)
17) **Ascertainment** – A process to determine what a community needs and wants, so that a radio station can try to serve its community better.
18) **Audio production** – Recording of sound and reproduction is the mechanical or electrical inscription and re-creation of sound waves, typically used for the voice or for music. The two basic classes of sound recording include analog and digital recording.
19) **Audio consoles** – Mixing consoles or a digital mixing console or audio mixer, also called a sound board or soundboard, is an electronic device for combining, or mixing, routing, and changing the level, timbre the dynamics of audio signals. A mixer can mix analog or digital signals depending on the type of mixer.
20) **Audition tape formats** – A recorded program or a radio show, news, sports, commercials, etc. to show and have heard for employment.
21) **Automated radio** – Radios that can be automated or controlled by electronic devices requiring very little human intervention.
22) **Automatic Equipment** – Equipment that enables a radio or TV station to operate automatically.
23) **Average quarter** – A term used in the industry describing audience measurements according to Arbitron. For example, the average number of persons listening to a particular station for at least five minutes during a 15-minute period of time.
24) **Backsell** – A term for a technique used by DJs where the deejay announces the title or the artist of the song he just played.
25) **Backtiming** – Calculating the intro time on a song before its vocal begins and starting the audio source or CD along with that song so when the preceding audio ends, the vocal on the song that has been back timed begins right at the end of the previous audio.
26) **Band** – Broadcasting range, or wave lengths of sound.
27) **Bed** – Refers to a production element, such as instrumental music and/or a continuous sound effect such as the ocean or wind, used as a background element for a promotional announcement.

28) **Billboard** – The opening of a radio or TV show; a brief announcement identifying a sponsor at the beginning or the end of another programming element such as the news or traffic.

29) **Board** – The console that is used for controlling the audio mix and output during a live broadcast or studio recorded sources.

30) **Board Op** – the person physically operating a console in the radio studio who makes sure that a live program runs smoothly or that a recorded program airs properly.

31) **Bonus Station** – A network or local radio or TV station that airs a program with commercials free of charge.

32) **Book** – Slang for an Arbitron rating period such as fall, winter, spring or summer.

33) **Bring it up** – Increase the level of volume control.

34) **Broadcast** – A presentation of a recorded or live program on the radio or TV, commercial or otherwise.

35) **Broadcasting** – The transmission of electromagnetic signals through the airwaves over a wide area, as in television or radio is known as broadcasting. These signals may also be transmitted point-to-point, as in microwave transmission, and are referred to as narrowcasting. A broadcast may also be synonymous with a TV or radio program. Broadcasting is also referred to as the radio and television broadcast industry. Typically, broadcasters work in the industry. To broadcast is to participate in a radio or television (TV) program.

36) **Broadcast journalism** – Encompassing radio, television and online forms of media, broadcast journalism is a discipline of writing news-oriented journalism. Broadcast journalism refers to television news and radio news, as well as online news outlets.

37) **Bumper** – An audio segment that is prerecorded, typically consisting of voice over music, that acts as a transition to or from a stop set of commercials or other content.

38) **Bumper music** – Music clips that are used to transition between one programming element into another such as when a local affiliate station inserts local commercials, it often plays music during the transition to avoid dead air or empty pauses.

39) **Call letters** – The I.D. or official legal name of a radio station, such as KROC-FM.

40) **Campaign ads** – Commercials in a series that have the same theme.

41) **Cans** – A slang term for headphones.

42) **Cart** – Used to store recorded sound before the advent of digital technology, a cart is similar to an 8-track cartridge and is made of analog tape that loops back to the beginning after it plays.

43) **Cartridge machine** – Machines that use tapes in a cartridge, which looks similar to an 8-track tape; you can play back or record on cart machines.

44) **Channels** – The Federal Communications Commission designates a channel, otherwise known as a spectrum frequency on the band of the radio or TV dial, for a radio or television station to ensure that the stations do not interfere with each others signal. Channels are known to viewers as the numbers on TV dials corresponding with individual local stations. Channel assignments vary widely by market.

45) **Clear channel station** – A broadcast station whose operation covers a very wide area.

46) **Clear channel** – a radio station operating at maximum power (50,000 watts) on an exclusive frequency that is designed to serve large areas. This also refers to any radio station owned by "Clear Channel Communications," the largest radio company in the United States.

47) **Closed circuit** – A transmission through direct telephone lines or cable wires to receive the broadcast signal. It is not broadcast with the transmitter of a radio or TV station.

48) **Clutter** – An excessive number of commercials or other non-program elements appearing one right after the other.

49) **Color Announcer** – The second banana, or sidekick, to the play by play announcer doing a broadcast of a sporting event. For example, on Monday Night Football, Al Michaels is the play by play announcer, John Madden is the color announcer of color commentator.

50) **Commercials** – Business's advertising messages, they are recorded or live. Lengths are usually 15, 30 or 60 seconds, and sometimes 2 minutes.

51) **Commercial copy** – The written commercial message.

52) **Console** – a Board used for controlling the audio mix and output from a live studio broadcast or other recorded sources.

53) **Consolidation** – A trend in the radio industry where larger companies buy up smaller companies. After 1996, when deregulation was approved, single ownership and small group ownership of radio stations has decreased.

54) **Contest pig** – Listeners who listens to many station just for the purpose of calling in and trying to win contests.

55) **Copy** – Content or written material for commercials, promotional or public service announcements, or any other worded information that will be read by a DJ.

56) **Copywriter** – Individual who scripts and writes radio and TV commercials.

57) **Credits** – The people involved in the actual program, everyone including back stage hands.

58) **Crossfade** – The control board operator uses this technique — mixing sound between two sources by fading one down while at the same time raising the volume of the second source. As the second source becomes prominent, the first source is faded away entirely.

59) **Cue** – A signal to begin and go on with talking, introducing records, etc.

60) **Cue Burn** – Historically, when DJs used to use vinyl recordings such as 33 or 45 rpm to play songs, they placed the needle on the record and then hand-turned the turntable until the needle played the beginning of the song. The DJ would rock the turntable back-and-forth a couple of times to make sure the needle was at the very beginning so that when the turntable was turned on, the recording would start immediately. This act of rocking the needle back-and-forth created physical indentations in the vinyl over time, eventually creating a bit of white noise sounding like "chhhhh" when the record started.

61) **Cume** – A radio station's cume is an abbreviation for cumulative audience, or the unduplicated households listening during a specified period of time.

62) **Data Transmission** – The sending of data, such as audio or video messages, by breaking the information down into the smallest bit units that a computer understands.

63) **Daypart** – A portion of a radio station's broadcast day, usually split into Morning: 6-10am, Midday: 10-2pm, Afternoon: 2-6pm, Evening: 6-12 Midnight, etc.

64) **Dead air** – Silence on the radio when there is no audible transmission that can be due to either operator error, computer error or an act of nature.

65) **Decibel** – The unit that measures the volume of sound.

66) **DeeJay (DJ)** – Radio personality, or disc-jockey – a "jock."

67) **Delayed broadcast** – The program is pre-recorded, or not live. To be broadcast at another time.

68) **Delivery** – The style that an announcer uses when announcing a commercial, or reading a script.

69) **Deregulation** – The loosening of Federal regulation over radio stations either by decree from the FCC or through law by Congress. The Communication Act of 1996 offered new deregulation for radio.

70) **Diaphragmatic breathing** – Sometimes known as 7 to 11 breathing because of the counting when performing this technique, this breathing technique requires a breath in to a count of 7, then a breath out to a count of 11. The out breath must last longer than the in breath.

71) **Digital Audio Tape (DAT or R-DAT)** – A signal recording and playback medium that was developed by Sony in the mid '80s. It appears similar to a compact audio cassette and uses 4 mm magnetic tape enclosed in a protective shell, but it is half the size at 73 mm × 54 mm × 10.5 mm.

72) **Director** – The individual responsible for controlling the program on radio or TV.

73) **Disc** – A phonograph record or a CD.

74) **Digital radio** – Technology that concerns the transmitting of digital audio and data signals alongside existing AM and FM analog signals, which allows listeners to enjoy CD-quality sound, eliminating the static and hiss associated with analog broadcasts. It also provides a platform for new wireless data services that, combined with display screens on HD Radio-enabled receivers, will deliver a variety of additional information such as song titles, artist names, traffic updates, weather forecasts, sports scores, etc.

75) **Drive Time** – Known as the time periods between 6-10am (Morning Drive) and 2-6pm (Afternoon Drive) when radio stations typically have their highest listenership.

76) **Drops** – Sound bites that have been lifted from movies, television programs or other sources to be used by DJs to accentuate programming.

77) **Dub** – To make a copy of a tape or an audio or TV segment or a commercial.

78) **Engineer** – the technician responsible for maintaining and fixing the radio station's equipment such as consoles, microphones and transmitters.

79) **(E) Ethnic Radio** – Ethnic radio programs typically broadcast in different languages from major metropolitan areas across the U.S. They are produced locally and cater to the cities with the highest concentration of the respective ethnic communities.

80) **Eavesdropping** – is the act of surreptitiously listening to a private conversation. Federal law makes interception, or eavesdropping, of any communication a crime unless done by or with the consent of one of the parties to the conversation. Criminal interception is punishable by five years in prison or $10k.

81) **EAS Test** – An Emergency Alert System is a real-time test of the system to insure the audio link between each station works properly. This replaced the old Emergency Broadcast System (EBS.) EAS is an electronic system which uses the radio

infrastructure to alert the general public to emergency situations including weather, safety and homeland security. It requires certain smaller, less important radio stations to give their programming over to larger, more important stations for the purpose of information dissemination.

82) **Edit** – To delete or add on a recording, tape or video.

83) **Feed** – To transmit a telecast from one station to other stations or networks.

84) **Feedback** – An annoying sound caused by amplifying the speaker to the microphone.

85) **FM** – A method of impressing data onto an alternating-current (AC) wave by varying the instantaneous frequency of the wave.

86) **FM Blanketing** – A form of interference to the reception of other broadcast stations, caused by the presence of an FM broadcast signal of 115 dB (562 mV/m) or greater signal strength in the area adjacent to the antenna of the transmitting station.

87) **Format** – The program element; example: A.O.R. M.O.R. Country Western, Jazz, Rock, etc.

88) **Format Clock** – A circular diagram like a clock, divided up like a pie, where each piece represents both a radio programming element and its length in a typical hour. This includes songs, commercials, talk time, etc. Directors often use a format clock to create the hour-to-hour flow of radio station's programming.

89) **Freedom of information** – Over seventy countries around the world have implemented some form of freedom of information legislation.

90) **Freeform radio** – A specific radio show format approved by a station's management in which the DJ of the station has complete freedom or control over program content and a tendency to play music that is not usually heard.

91) **Freelance** – An individual who is self-employed and not employed by a station.

92) **Frequency** – Technically this is an electromagnetic wave frequency between audio and infrared. When used in a programming context, it means the number of times the target audience will be exposed to a message.

93) **Front sell** – The introduction of a song that has just started to play, or the on-air personality stating the name of the radio station as the very first thing said. For example, the announcer may front sell the call letters, and then introduce the next song.

94) **Gain** – A term for volume.

95) **Headphones** – Headsets or earphones used to hear whatever you are recording, or broadcasting, at each given moment.

96) **Hit the post** – Deejays often use this term to describe talking up to the point when the lyrics begin without stepping on the beginning of the vocals. It also refers to talking up to the point where the instrumental of a song begins or ramps up.

97) **High Definition Radio or HD Radio** – This is when technology transmits digital audio and data alongside existing AM and FM analog signals. Liquity, the developer of this technology, says HD Radio offers FM Multicasting, or the ability to broadcast multiple program streams over a single FM frequency, with static-free, crystal-clear reception and a variety of data services including text-based information.

98) **Hook** – This is the part of a song that is unique in the listener's ear, such as the portion of the song the listener usually likes and remembers the most.

99) **Hour** – An industry term that refers to audience measurement. For example, according to Arbitron it means the average number of persons listening to a particular station for at least five minutes during a 15-minute period.

100) **I.D.** – A station's legal identification, usually given at the top of the hour.

101) **Inflection** –The blending of the voice that carries us from one pitch to another.

102) **Interference** – Static caused from another radio or TV station due to being broadcast over the same band.

103) **Imaging** – The type of promos (Fifties Rock) or how one positions a radio station within the marketplace which defines the station so that the listener knows what he/she will get when they tune in.

104) **Jingle** – A programming element such as an anthem or musical song produced by professional studio singers for commercials or radio station promotional announcements.

105) **Level** – The volume level that controls the broadcast.

106) **Liner** – A written phrase that stand by themselves and are meant to communicate concise imaging. Typically, a DJ says a "liner" over an intro of a record or during a commercial break between songs and spots.

107) **Live assist** – This describes how a DJ creates a radio show by interacting with a computerized system. The DJ provides live talk, chat, liners, and then activates the computer system which automatically runs commercial spots, jingles, promos or songs. When it is time for the DJ to talk again, he/she deactivates the automation and goes live again.

108) **Log** – The written record of what transpires at the radio station, including: music, commercial content and transmitting specifications. A music log is a list of the songs played for the day, a commercial log shows which commercials were played and when and an engineering log show the status of a transmitter's specifications during the course of a day.

109) **Major market** – A large city radio or TV station. The top 20 cities in the U.S. (New York, Chicago, Los Angeles, etc.)

110) **Man on the street** – A type of interview.

111) **Media** – Any type of advertising service – radio, TV, newspaper, etc.

112) **Medium market** – A city in the country which is medium in size, maybe up to 500,000 people.

113) **MIKE** – Abbreviation for the microphone.

114) **Microphone** – The device that converts the sound waves into electrical energy.

115) **Miscue** – A situation when the audio element begins too soon so the end result is two audio sources playing at the same time.

116) **Mixing** – Used in sound recording, audio editing, and sound systems, mixing balances the relative volume, frequency, and dynamical content of a number of sound sources for the different musical instruments in a band or vocalists, the sections of an orchestra, announcers and journalists, crowd noises, etc.

117) **Moderator** – The leader in a discussion of any group which is broadcast.

118) **Monitor** – To listen or view a program, with radio or TV. Also a speaker, as in a speaker used to monitor what goes is being broadcast or what is being cued up for subsequent play.

119) **(MOR) Middle of the Road** – A radio format that appeals to the 35-60 year old age group.

120) **Multicasting/multiplexing** – The practice by which TV stations split a single digital signal into six or more different regular channels. TV stations generate increased revenue by using some channels for all of video transmission, voice mail, paging, data transmission and Internet service.

121) **Music Director** – The person at a radio station responsible for interacting with record company representatives, auditioning new music, and making decisions in conjunction with the program director, about which songs get airplay, how much and when. The music director devises rotations for songs and programs the daily music through specialized software.

122) **Narrator** – The individual who announces during the course of a broadcast program.
123) **NBC** – National Broadcasting Company.
124) **NCS** – Nielsen Coverage Study, used in radio and TV ratings.
125) **On demand audio** – The act of streaming or turning audio into digital data and transmitting it over the Internet.
126) **On the beach** – A radio industry term for being unemployed.
127) **Open mike** – A mike which is live, on at the given moment.
128) **Obscene language** – A term that is most often used in a legal context to describe expressions (words, images, actions) that offend the prevalent sexual morality of the time. It can simply be used to mean profanity, or it can mean anything taboo, indecent, abhorrent, or disgusting. (Latin: obscenus, meaning "foul, repulsive, detestable.)
129) **P.D.** – Abbreviation fro Program Director; the individual who controls the radio or TV station's format or programs that are broadcast.
130) **Phase shift** – A change in the phase of a broadcast signal. Phase can also be defined as a periodic and varying phenomenon.
131) **Phone interface** – An electronic device allowing on-air performers easy access to telephone lines. It allows the audio signal from a microphone to be heard by a caller and takes the caller's audio and directs it into a radio studio console or recording device.
132) **Pitch** – The actual tone or sound of one's voice.
133) **Player** – A software application that can receive audio streams over the Internet and convert the digital data back into sound. For example music, talk, etc.
134) **Playlist** – The official list of songs that a radio station plays during any given day or week. Playlists are important since they are submitted to trade newspapers and magazines and compiled to reflect national airplay and trends.
135) **Play-by-play announcing** – The main sports announcer on a sports event broadcast. Responsible for describing the plays as they happen. Usually works with a color announcer who supplies descriptions, anecdotes and background information during pauses in play.
136) **POT** – An abbreviation for the word potentiometer, a round control which increases or decreases the volume sent to a channel on a radio console or audio mixing board.

137) **Podcast** – An audio file in a concise form, like an .mp3, created in the form of a radio show with a way to subscribe to it so it is automatically downloaded and delivered to a personal audio device, such as an iPod.

138) **PJ** – A slang term that means a Pod-Jockey or a PJ for a Podcaster one who hosts a podcast containing music.

139) **Primary coverage** – The area where the reception of a broadcast is at its best; an excellent locality and area. Often times considered grade A in broadcast.

140) **Producer** – The person at a radio station who conducts the day-to-day business for a radio show, from lining up guests to acting as a liaison between management and talent.

141) **Production Director** – The person at a radio station responsible for overseeing the creation and implementation of commercial content, promotional announcements and any other audio element that must be created for broadcast.

142) **Production Manager** – The person who is in charge of producing the commercial announcements.

143) **Production element** – An audio element such as music, a sound effect, or an audio effect, including a reverb or echo, used in creating a final audio mix such as a commercial, promotional announcement, or even a humorous skit.

144) **Programming** – The output or product of a radio station that is presented either in long form or short form styles. An example of long form programming is when a station presents a topic in extended length, such as public radio does. Short form programming is when a station maintains a constant format, such as a style of music where the programming includes smaller modules strung together.

145) **Program Director** – The employee at a radio station who is responsible for the creation and maintenance of the audio output of a radio station with the goal of attracting a listening audience from a target demographic.

146) **Promo** – An announcement, live or pre-recorded, promoting upcoming events or the radio station's image, promotes the results of a past event or promotes any other event which benefits a station's activities.

147) **Promotions Director** – the individual who is responsible for creating, planning and carrying out the logistics of both sales and programming oriented promotions.

148) **PSA** – Another term for Public Service Announcement, a free non-profit organization or business spot announcement.

149) **Public Interest** – Refers to a concept suggesting that in return for using the public airwaves free of charge, a broadcaster is obligated to act as a trustee of public property and do what is best for the public good. The "public" refers to the local community to which broadcasters are licensed to serve, while "interest" means to benefit the public, as distinct from programs the public is interested in. Public interest obligations are those specific actions broadcasters undertake in exchange for their free license to repay the public for using the broadcast spectrum of public airwaves.

150) **Public Service Announcements (PSA's)** – Known as PSA's, these are announcements providing advice on an issue of importance, such as alcohol related campaigns like, "Friends Don't Let Friends Drive Drunk."

151) **Queue** – a number of cuts or commercials that are waiting to be played back in a specific, predetermined manner as in a station break.

152) **Radio** – Telecommunication by modulation and radiation of electromagnetic waves.

153) **Ramp** – The instrumental beginning of a song leading up to the vocals, also known as the intro.

154) **Ratings** – An estimate of the size of an audience shown as a percent of a total group of people surveyed.

155) **RDS** – An abbreviation for Radio Data system, this technology allows stations to transmit additional types of information via encoded digital signals that can be received and displayed by the user's radio. An RDS-capable radio can display the title and artist or current song playing, local traffic information, an advertiser's phone number while a commercial is playing.

156) **Regional Network** – A network of stations that covers only a certain region or area such as North, West, South or East areas.

157) **Reel-to-reel analog machines** – Reel-to-reel, open reel tape recording is a form of magnetic tape audio recording in which the recording medium is held on a reel.

158) **Remote** – This refers to a broadcast that originates live on location, outside the station's studio where the broadcast would normally originate.

159) **R.P.M.** – Revolutions per minute, used in recording.

160) **Segue (Pronounced seg-way)** – moving from one musical selection to another without any announcing or interruption.

161) **Share** – The number of persons who listened to a station during a given time period, expressed as a percent of all persons who listened to radio during that time period.

162) **Shell transmitter** – The source or generator of any signal on a transmission medium.

163) **Shock jock** – a radio personality who typically uses controversial and/or what could be considered obscene contest by some, in order to attract more attention in the pursuit of higher ratings.

164) **Shortwave** – The band of frequencies approximately between 3 MHz and 30 MHz, shortwave is also known as radio wave deflection and it permits a broadcast to travel thousands of miles without interference from mountains or other obstacles.

165) **Sideline Reporter** – Used to describe a sports reporter who roams the sidelines of a sporting events. The sideline reporter often conducts interviews with coaches, players and fans during breaks in the action as well as providing injury updates.

166) **Sign-on** – The time in which a radio or TV station begins its broadcast day.

167) **Simulcast** – The broadcast of the same or simultaneous show or telecast on different stations.

168) **Skype** – A free Internet telephony used by many podcasters to conduct interviews and other business.

169) **Small Market Station** – A radio or TV station located in a small city or town.

170) **Sound byte** – A snippet of audio usually culled from an interview and used in conjunction with a news story. Its length may vary anywhere from 00:05 to 00:15 seconds.

171) **Spot** – Another word for a radio commercial.

172) **Sports Broadcasting** – The broadcast, usually live, of a sporting event or occassion. Also used to describe the portion of a newscast devoted to sports news.

173) **Stager** – a musical effect that establishes and holds; good for dramatic emphasis.

174) **Station IDs** – Legal announcement broadcast at the top of the hour identifying the radio station by its legal call letters.

175) **Station log** – A journal listing every song and commercial played and the time they were played.

176) **Stinger** – A technique often used by radio DJs that is a sound or musical effect punctuating or emphasizing a thought.

177) **Stop set** – This refers to the place where commercials are played during a typical broadcast hour. There may be several scattered throughout a typical 60 minute period.

178) **Streaming** – The act of turning audio into digital data and transmitting it over the Internet.

179) **Stream jockey** – What a DJ is called on satellite radio or a DJ on a webcast.
180) **Syndicated** – a radio program offered by a network or an independent organization that is for sale or on a barter basis to radio stations.
181) **Sweeper** – A recorded element, such as a voice, voice over music or sound effects, that bridges two songs together or creates a transition from commercials back to music.
182) **TAG** – A short addition which is added to a radio or TV commercial message.
183) **(T) Talk radio format** – A type of radio format where listeners call in and talk to the DJ.
184) **Teletype** – A news receiver, usually Associated Press (AP) or United Press International (UPI), which is fed into stations by a telephone line and converted into typewritten messages.
185) **Tower array** – The physical configuration of several radio antenna towers. Some radio signals are confined and restricted in the pattern they may be broadcast, which is done to protect other radio broadcasts in other geographic areas that also use the same frequency.
186) **Transmitter** – The source or generator of any signal on a transmission medium.
187) **Transducers and compressors** – An electronic or photonic device that converts one type of energy or physical attribute to another for various purposes including measurement or information transfer.
188) **Turntable** – The circular platform which revolves used to place a phonograph record on to begin transmitting.
189) **UHF** – Very high frequency waves
190) **UPI** – United Press International, a national news wire service.
191) **Voiceovers** – A production technique using a disembodied voice as broadcast live or pre-recorded in radio, television, film, theater or in a presentation; spoken by someone who also appears on-screen in other segments, voiceovers can also be commonly referred to as an off camera commentary.
192) **Voice Track** – A pre-recorded voice of a radio personality or DJ that is recorded and stored in a computer to be played at a specific time in a pre-programmed sequence such as at the beginning or end of a song.
193) **Vocal/Voice exercises** – Exercises that help prepare the breath to support the voice.

194) **Voice and speech training** – Classes for speech and voice improvement for professional and public speaking, foreign accent reduction, and communication etiquette.
195) **VU Meter** – A device which measures, in units, the strength of an audio signal
196) **Weather Reporting** – Broadcasts on radio or television about local daily weather, or for local and national weather service warnings and watches.
197) **Wire services** – News and press release distribution services.
198) **Write in** – Added to a script or to a commercial copy in addition to the script.

20.3 SUMMARY

Radio terminology is a vast subject whose overview is given in this lesson. Learning radio terminology helps a student in better understanding the field of broadcasting. This lesson intends to work as a radio encyclopedia for the reader.

20.4 GLOSSARY

- **Jargon:** Special words or expressions used by a profession or group that are difficult for others to understand.
- **Terminology:** The body of terms used with a particular technical application in a subject of study, profession, etc.

20.5 SELF-ASSESSMENT QUESTIONS

1) Explain radio jargon relating to script and content development of radio
2) Mention few technical jargon of broadcasting

20.6 SUGGESTED READINGS

1) Baruah, U. L. (2017). *This is All India Radio.* New Delhi: Publications Division Ministry of Information & Broadcasting.
2) Harry M. Estrada, P. D. (Ed.). (2010). *Cognitive Radio: Terminology, Technology, and Techniques.* United States: Nova Science Publishers.
3) Kumar, K. J. (1994). *Mass Communication in India.* India: Jaico Publishing House.

Litvinenko, A. S. (1937). *Dictionary of Radio Terminology in the English, German, French and Russian Languages.* Russia.

M.A (J&MC) **DEGREE EXAMIANTIONS,**

Second Semester

Journalism and Mass Communication

Paper-III – RADIO BROADCASTING

(w.e.f the batches admitted 2013- 2014)

Time : Three hours Maximum : 70 marks

Answer ONE question from each Unit

All questions carry equal marks

UNIT I

1. (a) What are the objectives of Radio?

Or

(b) Identify special audience programmes.

UNIT II

2. (a) Discuss the stages of radio programme production.

Or

(b) How do you make radio interview effective?

UNIT III

3. (a) What do you about public broadcasting?

Or

(b) Explain Non-Lapsable Fund (NLF).

UNIT IV

4. (a) Discuss the role of programme executive in Radio.

Or

(b) Explain the functions of Audience Research.

UNIT V

5. (a) Discuss the role of Community Radio Stations (CRS).

Or

(b) Discuss about emerging trends in Radio Broadcasting.