



Chapter 11 Agriculture Extensions



Contents

Chapter 11 Agriculture Extensions	0
Chapter 11 Agriculture Extension	3
Meaning of Extension Education	3
Types of Education:.....	3
Different types of Extensions:.....	4
Concept of Extension Education process:.....	4
Agriculture extension:.....	9
Evolution of the Extension System in Indian Agriculture	10
Objectives of Extension Education:	12
Scope of Agriculture Extension:.....	13
Four paradigms of agricultural extension	13
Early Efforts in Extension Education:	14
Evaluation of extension programmes.....	14
Evaluate Programme Management.....	15
Methods /Steps involved in an extension programme evaluative process:	16
Agricultural Extension in India: Institutional Framework & Policy Measures:	16
Indian Council of Agricultural Research (ICAR):.....	16
National Agricultural Research Project (NARP):	17
Kisan Call Centres (KCC):	18
Extension Education Institutes (EEl)s:.....	18
National Mission on Agricultural Extension & Technology:	19
Krishi Vigyan Kendra (KVK):	20
Design of KVK:	20
Strategies of working KVKs:	22
Output of KVKs.....	22
Transfer of technology programmes of ICAR	22
Indian Council of Agricultural Research Vision-2050:.....	23

Chapter 11 Agriculture Extension



Meaning of Extension Education

- The word 'Extension' is derived from the Latin roots
 - a) 'tensio' meaning stretching and
 - b) 'ex' meaning out
- Extension education means that type of education which is stretched out into the villages and fields beyond the limits of the schools and colleges to which the formal type of education is normally confined.
- In other words, the word 'Extension' used in this context signifies an out –of –school system of education. And the word extension is commonly to understand and “to extend” the new ideas, practices.

Definition: Extension Education

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

Or

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

Types of Education:

Informal Education

- Informal education is where every individual learn either through acquired skills, attitudes, insights , intuitions, mistakes and even experiences, exposures to environment.

Non-formal Education

- This form of education is systematic and in organised way which carried on the framework of formal system to selected group to provide selected types of learning.
- E.g.: adult education, vocational education, functional literacy, continuing education, extension education etc.

Formal Education

- Structured, chronologically and institutionalized where education starting from primary school to university education which decides profession or career of individuals.

Different types of Extensions:

- **Extension service:** Extension process is as a means of programme implementation of organisation, project or program of agricultural development and rural welfare.
- **Extension process:** The extension process is that of working with rural people through out of school education and application of knowledge and education for people to gain livelihood, improve physical level of living of rural families and fostering rural community welfare.
- **Extension Job:** It is agricultural profession to help and provide assistance for farming community to utilize more resources judiciously, to solve problems and in meeting changing economic and social conditions.

Extended Education	Formal education
Teaching is outside the walls of institution	Teaching confined to premises of institution
Learners have diverse goals and heterogenous	Common goals with homogeneity
No fixed curriculum	Fixed Curriculum
Flexible according to needs of learners	Structured and rigid curriculums
No examinations and No degrees awarded	Exams conducted and degrees awarded
Problem to principal approach	Principle to problems approach
Knowledge sharing between teacher and students and also within both i.e., vertical and horizontal	Knowledge shared from teachers to students i.e., vertical only

Concept of Extension Education process:

Situation and Problems:

- Identification of situation and problems such as the economic, social, cultural, physical and technological environment in which they live and work. E.g., Agricultural census giving insight to problems of marginal farmers based on their subsistence.

Objectives and Solutions:

- Setting objectives for situation or community.
- Try to solve these solutions.

- Objectives should state the behavioural changes in people as well as economic and social outcomes desired.
- E.g., Dryland farming and organic pilot experiments in dry regions of Rajasthan and its effect on farmers.

Teaching plan of work:

- Objectives should be taught and awareness must be created.
- Similarly, solutions based on the problems identified in the particular example, technologies like use of HYV seeds, application of fertilizer and plant protection chemicals selected as teaching content.

Evaluation:

- Evaluation the teaching stage, determining the extent of success of objectives.
- Determining reality of theory and research and has it reflected in reality on grass level.
- Various surveys as Niti-Aayog Ease of doing Business Rankings.

Reconsideration:

- Re-consideration of the entire extension educational programme on the light of the results of evaluation.
- The problems identified in the process of evaluation may become the starting point for the next phase of the extension educational programme, unless new problems have developed or new situations have arisen.

Objectives

1. To provide the farmers the knowledge and help that will enable him to farm more efficiently and to increase his income.
2. To help in planning and implementing the family and village plans for increasing production in various occupations.
3. To provide facilities for better family living.
4. To encourage the farmer to grow his own food. Eat well and living well.
5. To promote better social, natural, recreational, intellectual and spiritual life among the people.
6. To open up new opportunities for rural people so that they may develop all their talent and leadership.
7. To help the member of the farm family to a larger appreciation of the opportunities the beauty and the privilege of the rural life and to know more about the world in which they live.
8. To build rural citizens who are proud of their occupation, independent in their thinking, constructive in their outlook, capable efficient and self reliant in character and have a love of home and country in their heart.
9. To develop feeling of patriotism and love for society by developing civil civic sense among rural people.
10. To train rural people youth for development works.

Extension teaching methods:

Introduction

Extension teaching methods are the tools & techniques used to create situations in which communication can take place between the rural people & the extension professionals. These are the methods of imparting new knowledge & skills to the rural people by drawing their attention towards such technologies, thereby arousing their interest and helping them to have a successful experience of the new



practice. A proper understanding of these methods and their selection for a particular type of work is necessary.

Classification of Extension Teaching Methods

According to use

- One way of classifying the extension methods is according to their use & nature of contact vis-a-vis interpersonal, group and mass communication. Based upon the nature of contact, they are classified into following categories:

Individual-contact methods

- Extension methods under this category provide opportunities for face-to-face or person-to-person contact between the rural people and the extension professionals. These methods are very effective in teaching new skills and creating goodwill between farmers and the extension professionals.

Group-contact methods

- Under this category, the rural people or farmers are contacted in a group which usually consists of 20 to 25 persons. These groups are usually formed around a common interest. These methods also involve a face-to-face contact with the people and provide an opportunity for the exchange of ideas, for discussions on problems and technical recommendations. In this way, the future course of action is finalized.

Mass or community-contact methods

- An extension professional has to approach a large number of people for disseminating information and helping them to use it. This can be done through mass-contact methods conveniently. These methods are more useful for making people aware of the new technologies, quickly.
- Classification of extension-teaching methods according to their use:

Individual contacts	Group contacts	Mass contacts
Farm & home visits	Method and result demonstration	Print media (viz. Newspapers, magazines, leaflets, posters, pamphlets, circular letters bulletins)
Office calls	Group meetings, discussions	Electronic media (viz. Radio, television, cell-phones)
Telephone calls	Conferences, seminars, workshops, etc.	Internet-based media
Personal letters	Field trips, field days, campaign	Exhibitions, <i>dairy mela</i>

According to form

- Extension teaching methods are also classified according to their forms, such as written, spoken & audio-visual. Some of the important methods under each of these 3 categories are listed in table
- Classification of extension-teaching methods according to their form:

Written	Spoken	Object or visual
Bulletins	General & special meetings	Result demonstrations
Leaflets, folders, news articles	Farm & home visits	Demonstration plots
Personal letters	Official calls	Motion-pictures or movies, charts
Circular letters	Telephone calls, radio	Slides & film-strips, models, exhibits

- A brief description of some of the extension methods which are commonly used by extension professionals is given below:

Farm & home visit:

- Farm & home visit constitutes the direct or face-to-face contact by an extension professional with the farmer or the members of his family. During these visits, information is exchanged or discussed. The visits may be to get acquainted with the problems of the farmers. Such visits provide an opportunity for a two-way communication.

Method demonstration:



- It is used to show the technique of doing things or carrying out new practices e.g. clean milk production, paneer making, ghee making, etc. This method is usually used for groups of people.

Result demonstration:

- Result demonstration is meant for proving the advantages of recommended practices and to demonstrate their applicability to the local conditions. It is conducted by a farmer under the direct supervision of an extension professional. It is designed to teach others, in addition to the person who conducts the demonstration. It helps the farmers to learn by seeing & doing. This method can be used to show the superiority of practices, such as dahi culture, value addition, hygienic handling of animals, etc.

Group discussion:

- All the farmers cannot be contacted by extension professionals individually because of their large number. It is convenient & feasible to contact them in groups. This method is commonly known as group discussion. It is used to encourage & stimulate the people to learn more about the problems that concern the community through discussion. It is a good method of involving the local people in developing local leadership & in deciding on a plan of action in a democratic way.

Exhibition:

- An exhibition is a systematic display of information, actual specimens, models, posters, photographs, and charts, etc. in a logical sequence. It is organised for arousing the interest of the clientele in the things displayed. It is one of the best media for reaching a large number of people, especially illiterate & semi-literate people. Exhibitions are used for a wide range of topics, such as planning a model village, showing high-yielding breeds of cattle and buffaloes, new agricultural implements and the best products of village industries.

Campaign:

- Campaign is used to focus the attention of the people on a particular problem, e.g. milk adulteration, vaccination and prevention of animal diseases, tick control etc. Through this method, maximum number of farmers can be reached in the shortest possible time. It builds up community confidence and involves the people emotionally in a programme.

Field tour:

- Conducted tours for farmers are used to convince them and to provide them with an opportunity of seeing the results of new practices and products, skills, etc. and to give them an idea regarding the suitability & application of these things in their own area. Such tours may also be arranged to enable the rural people to visit places & institutions (connected with the problems of rural life), such as research institutions, training institutions, agricultural universities, model villages, areas of advanced developments, leading private farms, exhibitions, and agricultural & cattle fairs/dairy mela.

Print media:

- Newspapers, magazines, bulletins, leaflets, folders, pamphlets and wall news-sheets are another set of mass media for communicating information to a large number of literate people. They are used for communicating general & specific information on a programme of technology or a practice. Small folders, leaflets & pamphlets are used to give specific recommendations about a practice, such as clean milk production, vaccination schedule, detection of milk adulterants, etc.

Radio:

- It is one of the most powerful media of communication. It is a mass medium of communication and can reach a large number of people at any given time involving the least expense. Extension professionals use the radio for communicating information on new methods & techniques, giving timely information about the control of animal diseases such as foot & mouth disease (FMD), animal pests, weather, market news, etc. For this purpose, talks, group discussions, folk-songs, dialogues & dramas are usually broadcast. There are radio programmes broadcast by All India Radio (AIR), FM (frequency modulated) radio, community radio, etc.

Television:

- It combines both audio & visual impact and is very suitable for the dissemination of agriculture & dairy information. It is more useful in teaching to do a specific job. A beginning has been made in India for using this medium for development programmes and it is expected that its use will become more extensive in the coming years. At present, along with the Government-owned channel (Doordarshan), several other private channels are telecasting various kinds of entertainment and developmental programmes to reach the viewers.

Leaflet:

- A leaflet is a single sheet of paper used to present information on only one developmental idea in a concise manner, using simple language.

Folder:

- A folder is a single piece of paper folded once or twice, and, when opened, the material is presented in sequence.

Pamphlet:

- A pamphlet is an unbound single sheet of paper that is printed on both sides, printed in colours with action photographs, giving full information about a topic in greater length than in folders or leaflets.

Bulletin:

- A bulletin is a publication of around 20 pages, with the primary objective of giving complete information which the intended readers can apply to their own situation.

Booklet:

- When the extension material exceeds 20 pages and is less than 50 pages, it is called booklet.

Agriculture extension:

- Agricultural extension efforts in India have made significant strides towards development of the agricultural sector. The report of the national commission on Agriculture (1976) has emphasized the need for massive extension efforts to modernize the outlook of the farmers and to make them more enterprising and willing to adapt readily to innovations so that agricultural production could be increased.

- It is an applied behavioural science, the knowledge of which is applied to bring farmers or people through various strategies and programme of change by applying the latest scientific and technological innovations.
- Agriculture extension education, its principles, methods and techniques are applicable not only to agriculture but also to other sciences like veterinary, animal husbandry, dairying, health and family planning etc.
- To summarize, agriculture extension viewed as an educational programme to be undertaken by public agencies to activate the process of transferring knowledge, science and technology from laboratories to people or farmer and to help them in farm planning, decision making, record keeping, use of inputs, storage, processing and marketing, ensure supplies and services, increase their production, develop people and their leaders, improve their occupation, family, and community life.
- Agricultural extension is known was known as the application of scientific research and new knowledge to agricultural practices through farmer education.
- The field of extension now encompasses a wider range of the communication and learning activities organized for rural people by professionals from different disciplines, including agriculture, health and business studies.

Agricultural extension is the application of scientific research and new knowledge to agricultural practices through farmer education.

Extension is a wider range of communication and learning activities organized for rural people by educators from different disciplines, including agriculture, agricultural marketing, health, and business studies

- Agricultural extension agencies in developing countries receive large amounts of support from international development organizations such as the World Bank and the Food and Agriculture Organization of the United Nations.
- Also known as agricultural advisory services.

Evolution of the Extension System in Indian Agriculture

Post-independence period

- The first planned attempt started with the launching of Community Development Programme in 1952, followed by the National Extension Service in 1953.
- These programs were able to educate responsive farmers to take up improved methods of farming across the country.
- The other important Area-Based Special Programmes were; Intensive Agricultural District Programme (IADP, 1960), Intensive Agriculture Area Programme (IAAP, 1964) and High Yielding Varieties Programme (HYVP, 1966) besides Farmers Training Centers (1967) to train farmers on high yielding varieties and improved methods of farming to back up the above programs.

- The cumulative effect of these programs resulted in increased productivity, which made way to usher in 'Green Revolution' in Indian agriculture during late 1970s.
- The most important ones being; Small Farmers Development Agency (SFDA, 1969), Marginal Farmers and Agricultural Labourers Programme (MFAL, 1969), District Rural Development Agency/Society (DRDA, 1976), Integrated Rural Development Programme (IRDP, 1978) and Lab to Land Programme sponsored by ICAR (LLP, 1979).
- Although, these programs were able to improve the socio-economic conditions of beneficiaries, they were isolated in a given time and implemented in a phased manner.

Training and Visit System

- This system was introduced in India in 1974 with the World Bank assistance. Training and Visit system became the dominant method of restructuring the extension services in over sixty countries in Asia, Africa and Latin America.
- A Training and Visit (T&V) system was introduced in extension services on a pilot scale in Rajasthan in 1974 with World Bank funding support and was scaled up to several other states in 1977.
- While impressive results were documented by the studies that evaluated the T&V system, the issues related to sustainability of funding, high requirement of staffing, and the quality of staff became the key concerns.

In the 1990s:

- Agricultural extension witnessed a qualitative change in the 1990s, with a new focus on privatisation and the withdrawal of support to the state-led extension system.
- Reduced spending by government weakened the public-sector extension system. Other non-governmental agencies stepped in to fill the vacuum.

ATMA (Agricultural Technology Management Agency):

- In order to address the key constraints faced by extension system in the country with respect to reducing capacity of public extension services, its lack of decentralized and demand driven focus, the Innovations in Technology Dissemination component of National Agricultural Technology Project (NATP) was implemented in seven States in the country namely, Andhra Pradesh, Bihar, Himachal Pradesh, Jharkhand, Orissa, Maharashtra and Punjab through four project districts in each State.
- This component aimed at pilot testing new institutional arrangements for technology dissemination at district level and below in order to move towards an integrated extension delivery. The project process involved adopting bottom up planning procedures for setting the research and extension agency in order to make the technology dissemination farmer driven and farmer accountable.
- The extension delivery was oriented towards group approach catering to the location specific requirement of the farmers. Gender concerns have been given adequate emphasis under the project. It functions as a registered society at District level and serves as a focal point for integrating research and extension activities and helps in decentralizing the management of agricultural technology transfer.

Agricultural Technology Information Centres (ATIC)



- In 2000, ICAR introduced Agricultural Technology Information Centres (ATIC) in selected ICAR institutes and State Agricultural Universities to function as a single window to disseminate technologies developed in the Universities and Institutes.

Objectives of Extension Education:

- The basic objectives of extension education is to raise the standard of the people living of the rural area by helping them in using their natural resources (Like land; water, livestock) in the right way.
- The specific objective is the development of the people.

To provide the farmers the knowledge and help that will enable him to farm more efficiently and to increase his income

To help in planning and implementing the family and village plans for increasing production in various occupations

To provide facilities for better family living

To encourage the farmer to grow his own food. Eat well and living well.

To promote better social, natural, recreational, intellectual and spiritual life among the people

To open up new opportunities for rural people so that they may develop all their talent and leadership

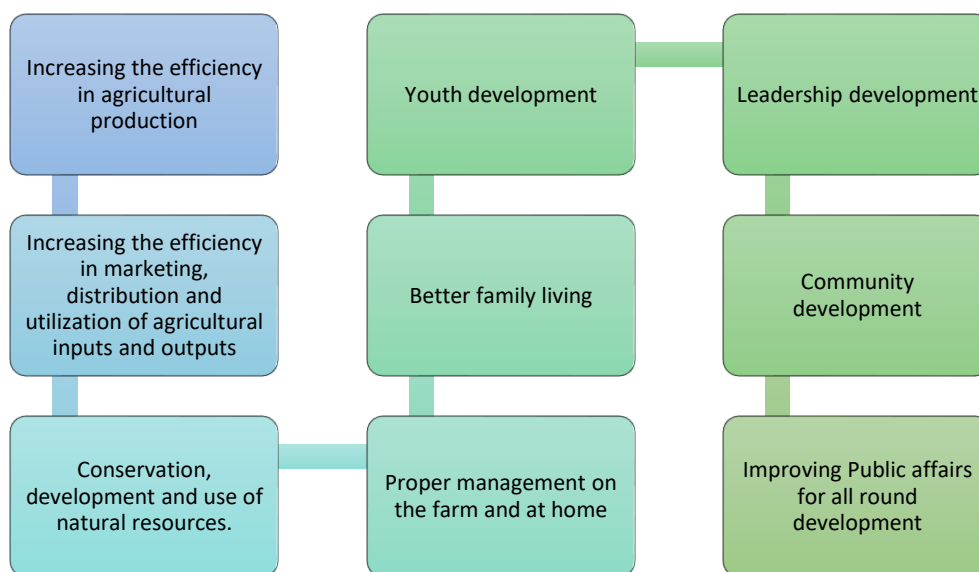
To help the member of the farm family to a larger appreciation of the opportunities the beauty and the privilege of the rural life and to know more about the world in which they live

To build rural citizens who are proud of their occupation, independent in their thinking, constructive in their outlook, capable efficient and self reliant in character and have a love of home and country in their heart.

To develop feeling of patriotism and love for society by developing civil civic sense among rural people.

To train rural people youth for development works.

Scope of Agriculture Extension:



Four paradigms of agricultural extension

1. Technology transfer (persuasive + paternalistic)
 - colonial times
 - top-down approach
 - Specific recommendations to farmers about the practices they should adopt
2. Advisory work (persuasive + participatory):
 - Today where government organizations or private consulting companies respond to farmers' inquiries with technical prescriptions.
 - form of projects managed by donor agencies and NGOs.
3. Human resource development (educational + paternalistic):
 - During earliest days of extension in Europe and North America.
 - Universities gave training to rural people who were too poor to attend full-time courses
4. Facilitation for empowerment (educational + participatory):
 - Experiential learning and farmer-to-farmer exchanges.
 - interactive processes and the participants are encouraged to make their own decisions.

Early Efforts in Extension Education:

1. Etawah Project: conceived in 1945 but was put into action in September, 1948 at Mahewa Village (UP). Albert Mayer of U.S.A. was the Originator of this project.

2. Nilokheri Project: 1965. Haryana. To rehabilitate 7000 displaced persons from Pakistan. Later integrated with 100 surrounding villages making a rural cum urban township. The scheme was called as "Mazdoor Manzil"

3. Gurgaon Experiment: first started by Mr. F.I. Brayne, Dy. Commissioner in the Gurgaon district of Punjab in 1920. To increase agricultural production.

4. Shrinikrtan Attempt: Rabindranath Tagore's work in "village reconstruction." 1922. **5. Sewagram Attempt:** Mahatma Gandhi. 1920. Maharashtra.

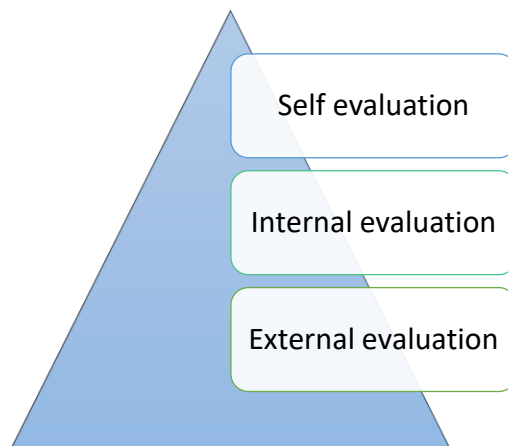
6. Marathandam Attempt: Mr. Spencer Hatch. Travancore. 1921.

Evaluation of extension programmes

Definitions:

It is a process, which enables the administrator to describe the effects of his programme and thereby make progressive adjustments in order to reach his goal more effectively.

- Programme evaluation is the determination of the extent to which the desired objectives have been attained or the amount of movement that has been made in the desired direction.
- 'Evaluation is the process of delineating, obtaining and providing useful information for judging decision alternative.'



1. Self-evaluation: This is to be carried out by every worker as a matter of routine. This requires the self-critical attitude, which is so essential for extension work.

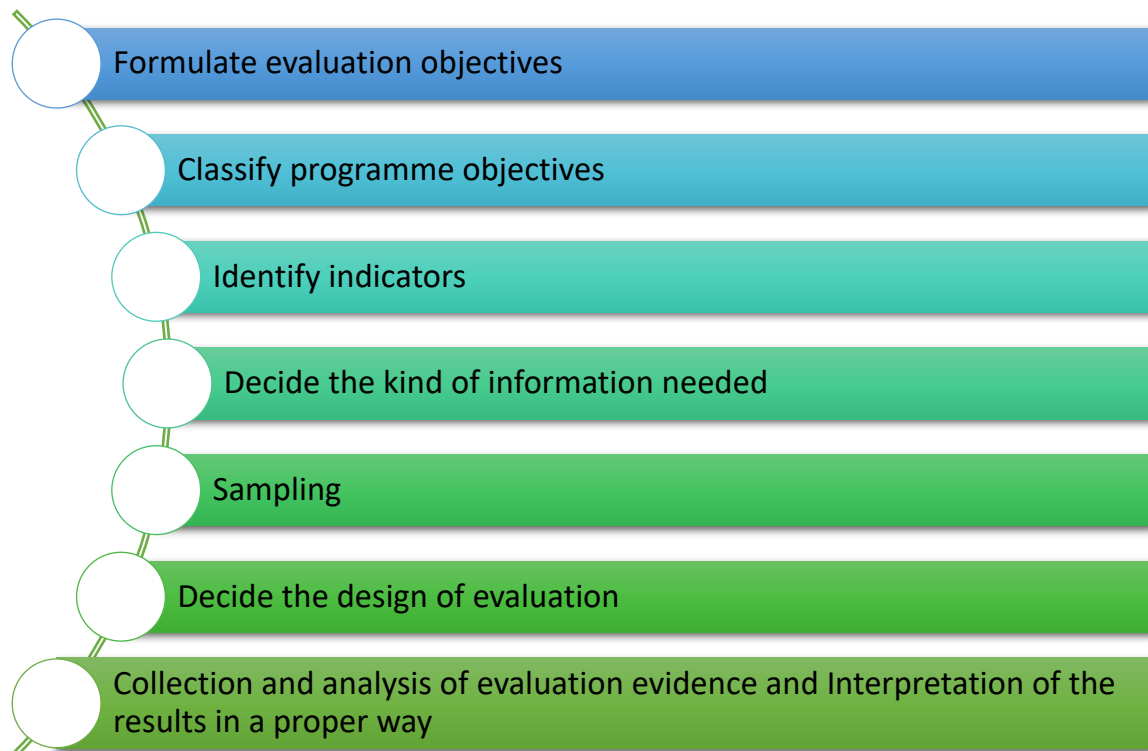
2. Internal evaluation: Evaluation carried to by the agency responsible for the planning and implementation of the programme. Some of the other methods for internal evaluation are systematic use of diaries and reports of workers, planned visits of staff members to work spots.

3. External evaluation: Evaluation conducted by a person or a committee outside the area of operation.

Evaluate Programme Management

1. Appropriate groups and organisations are involved in carrying out the programme.
2. Volunteer local leaders who assisted in carrying out the programme are given adequate training by the extension staff to do the job assigned.
3. To subjected matter presented is current and appropriate to meet the programme objectives.
4. The methods and materials used to present the subject matter are varied and stimulating.
5. Identifies the evidence you need to gather about the criteria work out the methods for collecting the evidence.

Methods /Steps involved in an extension programme evaluative process:



Agricultural Extension in India: Institutional Framework & Policy Measures:

Indian Council of Agricultural Research (ICAR):

- The Indian Council of Agricultural Research (ICAR) is an autonomous body responsible for co-ordinating agricultural education and research in India. It reports to the Department of Agricultural Research and Education, Ministry of Agriculture.
- The Union Minister of Agriculture serves as its president.
- Formerly known as Imperial Council of Agricultural Research, it was established on 16 July 1929 as a registered society under the Societies Registration Act, 1860 in pursuance of the report of the Royal Commission on Agriculture.
- It is the largest network of agricultural research and education institutes in the world.
- The committee to Advise on Renovation and Rejuvenation of Higher Education (Yashpal Committee, 2009) has recommended setting up of a constitutional body – the National Commission for Higher Education and Research – which would be a unified supreme body to regulate all branches of higher education including agricultural education.
- The ICAR has its headquarters at New Delhi.
- With 101 ICAR institutes and 71 agricultural universities spread across the country this is one of the largest national agricultural systems in the world.

Contribution of ICAR:

- The ICAR has played a pioneering role in ushering Green Revolution.



- It has played a major role in promoting excellence in higher education in agriculture.
- Establishment of the first State Agricultural University on land grant pattern at Pantnagar in 1960.
- The research and technology development by ICAR has increased the production of foodgrains by 5.6 times, horticultural crops by 10.5 times, fish by 16.8 times, milk by 10.4 times and eggs by 52.9 times.
- Establishment of the first State Agricultural University on land grant pattern at Pantnagar in 1960
- Creation of Department of Agricultural Research and Education (DARE) in the Ministry of Agriculture in 1973.
- Opening of first Krishi Vigyan Kendra (KVK) at Puducherry (Pondicherry) in 1974.
- Launching of Lab-to-Land Programme and the National Agricultural Research Project (NARP) in 1979.
- Establishment of National Gene Bank at New Delhi in 1996.

National Agricultural Research Project (NARP):

- The National Agricultural Research Project (NARP) was formulated by the Indian Council of Agricultural Research (ICAR) for strengthening the regional research capabilities of the State Agricultural Universities (SAUs).
- Assistance for the project was provided by the International Development Association (IDA), an affiliate of the International Bank for Reconstruction and Development (IBRD). An agreement in this respect was signed in December 1978. The project was administered by the ICAR through a Project Funding Committee (PFC).

Objectives and approach of NARP

- The main objective of NARP was to strengthen the regional research capabilities of the State Agricultural Universities (SAUs) as an important means of finding solutions to the location specific problems in different agro-climatic zones in their respective service areas.
- For this purpose, intensification of research efforts was envisaged in respect of
 1. Cereals, millets, pulses and oilseeds, particularly those that are grown under rainfed conditions,
 2. Farming systems involving crop-livestock and crop-fish production systems
 3. Agronomic practices
 4. Soil and water conservation techniques
 5. Land use patterns for more efficient use of natural resources and ecological potential.

Agri-clinic and agribusiness centres scheme:

The ACABC scheme is being implemented by Ministry of Agriculture and Farmers' Welfare, Government of India, with NABARD acting as subsidy channelising agency.

The objectives of the scheme are –

- To supplement efforts of public extension by providing extension and other services to farmers either on payment basis or free of cost as per business model of agri-preneur, local needs and affordability of target group of farmers
- To support agricultural development
- To create gainful self-employment opportunities to unemployed agricultural graduates, agricultural diploma holders, intermediate in agriculture and biological science graduates with PG in agri-related courses.

Agri-Clinics

- Agri-Clinics are envisaged to provide expert advice and services to farmers on various aspects to enhance productivity of crops/animals and increase the incomes of farmers. Agri-Clinics provide support in the following areas:
 1. Soil health
 2. Cropping practices
 3. Plant protection
 4. Crop insurance, Post-harvest technology Clinical services for animals, feed and fodder management Prices of various crops in the market, etc.

Agri-Business Centres

- Agri-Business Centres are commercial units of agri-ventures established by trained agriculture professionals.
- These ventures may include maintenance and custom hiring of farm equipment, sale of inputs and other services in agriculture and allied areas, including post-harvest management and market linkages for income generation and entrepreneurship development.
- The scheme covers full financial support for training and handholding, provision of loan and credit-linked back-end composite subsidy.

Kisan Call Centres (KCC):

- Kisan Call Centres (KCCs) have been established at 14 locations in the country to provide extension support on telephone to farmers in all States and Union Territories using a nation-wide toll free number 1800 180 1551. This number is accessible through all mobile numbers of all telecom networks as well as land lines from 6.00 AM to 10.00 PM on all 7 days a week.
- The Government has identified IFFCO Kisan Sanchar Limited (IKSL) as Service Provider of Kisan Call Centre Scheme. IKSL has deployed 376 Farm Tele Advisors (FTAs) to respond to the farmers' calls.
- The Kisan Call Centres are equipped with the state of the art technology having a number of new features viz. Internet Protocol Private Branch Exchange (IPPBX), redundant Internet bandwidth, 100% call recording/ call replay, call barging, voice mail service during call waiting or when KCC is not working and SMS to caller farmers giving a gist of reply given by KCC.

Extension Education Institutes (EEl)s):

- The Extension Education Institute EEI in its short form or प्रसार शिक्षण संस्था (in Hindi) is an agricultural institute established for the Extension of Knowledge through training programme.

- Training of farmers and govt. employees from the department of agriculture, horticulture and related departments.
- These employees are extension personnel and their major works are extension of knowledge (agriculture and related sectors) and departmental schemes.

Four Extension Education Institutes (EEl)s have been established on regional basis as detailed below:

- EEl, Nilokheri (Northern Region) started in 1959
- EEl, Hyderabad (Southern Region) started in 1962
- EEl, Anand (Western Region) started in 1962
- EEl, Jorhat (East & North East Region) started in 1987

Objectives of creating EEl:

- To provide in - service training to the staff of the State/Regional Training Centers in extension and communication methodology.
- To organize workshops on training methods / communication techniques for master trainers.
- To conduct training programmes in specialized fields like monitoring and evaluation, supervision and extension management for middle level extension functionaries.
- To conduct subject matter and extension education training programmes.

National Mission on Agricultural Extension & Technology:

- Agricultural Technology, including the adoption/ promotion of critical inputs, and improved agronomic practices were being disseminated under 17 different schemes of the Department of Agriculture & Cooperation, Ministry of Agriculture during the 11th Plan period.
- The Modified Extension Reforms Scheme was introduced in 2010 with the objective of strengthening extension machinery and utilizing it for synergizing interventions under these schemes under the umbrella of the Agriculture Technology Management Agency (ATMA).
- The National Mission on Agricultural Extension and Technology (NMAET) has been envisaged as the next step towards this objective through the amalgamation of these schemes.

Aims and objectives

- The objective of the Scheme is to make the extension system farmer-driven and farmer-accountable by way of new institutional arrangements for technology dissemination.
- It aims to restructure and strengthen agricultural extension to enable delivery of appropriate technology and improved agronomic practices to farmers.
- This is envisaged to be achieved by a judicious mix of extensive physical outreach and interactive methods of information dissemination, use of ICT, popularisation of modern and appropriate technologies, capacity building and institution strengthening to promote mechanisation, availability of quality seeds, plant protection etc. and encourage aggregation of Farmers into Interest Groups (FIGs) to form Farmer Producer Organisations (FPOs).

NMAET consists of 4 Sub Missions:



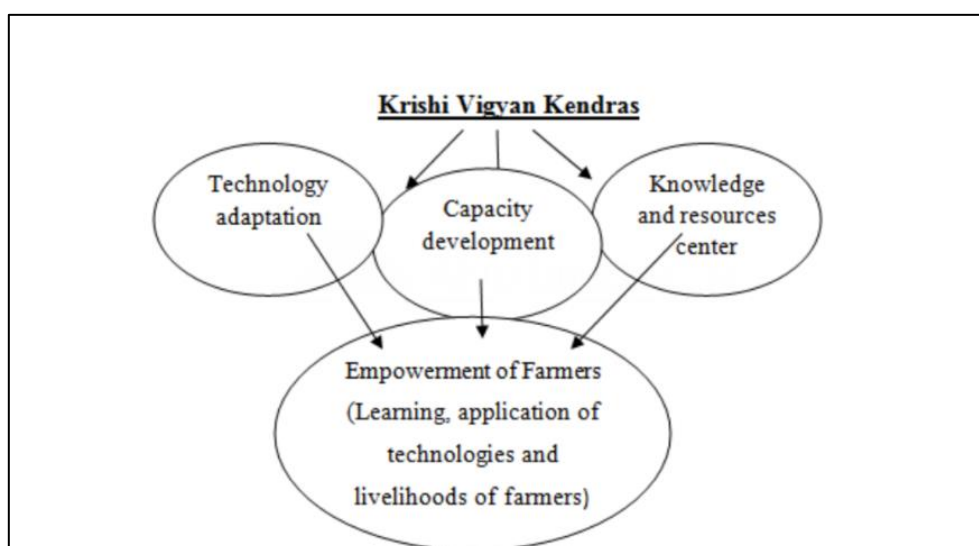
1. Sub Mission on Agricultural Extension (SMAE)
2. Sub-Mission on Seed and Planting Material (SMSP)
3. Sub Mission on Agricultural Mechanization (SMAM)
4. Sub Mission on Plant Protection and Plant Quarantine (SMPP)

Krishi Vigyan Kendra (KVK):

Krishi Vigyan Kendra (KVK) is an innovative science based institution which undertakes vocational training of farmers, farm women and rural youths; conducts on farm research for technology refinement and front line demonstrations to promptly demonstrate the latest agricultural technologies to the farmers as well as the extension workers.

- The KVK functions on the principles of collaborative participation of scientists, subject matter experts, extension workers and farmers.
- “Teaching by doing” and “learning by doing” are the main methods of imparting skill training.
- The first KVK was established in 1974 in Pondicherry under Tamil Nadu Agricultural University (TNAU).
- There are nearly 700 KVKs in India presently.
- At present there are 668 KVKs, out of which 458 are under State Agricultural Universities (SAU) and Central Agricultural University (CAU), 55 under ICAR Institutes, 100 under NGOs, 35 under State Governments, and the remaining 17 under other educational institutions.
- The KVK scheme is 100% financed by Govt. of India and the KVKs are sanctioned to Agricultural Universities, ICAR institutes, related Government Departments and Non-Government Organizations (NGOs) working in Agriculture.

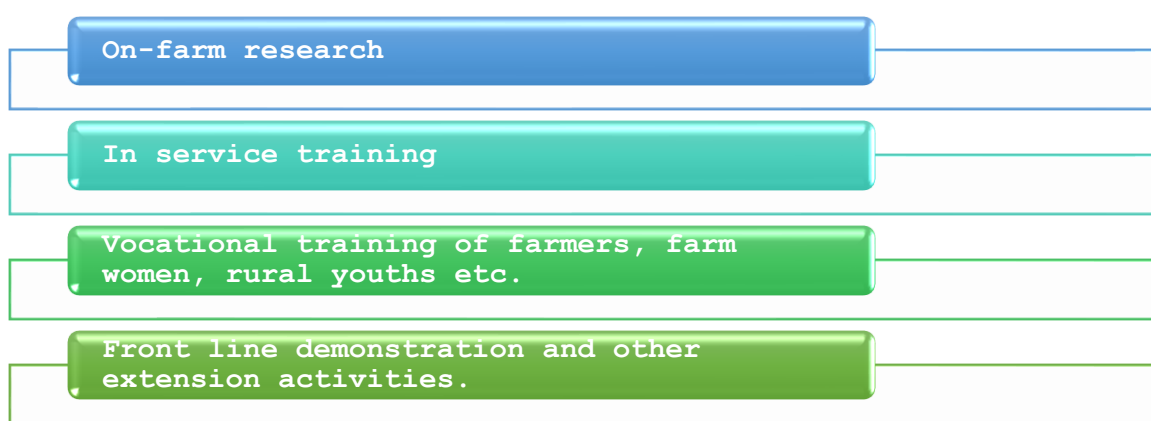
Design of KVK:



Mandates of KVKs:

1. Collaborate with the subject matter specialists of the state Agricultural universities/Scientists of the regional research station, NAEP and the state extension personnel in “on farm testing”, refining and documenting technologies for developing region-specific sustainable land use systems.
2. Organize training to update the extension personnel within the area of operation with emerging advances in agricultural research on regular basis.
3. Organize long term vocational training courses in agriculture and allied vocations for the rural youths with emphasis on “learning by doing” for generating self-employment through institutional financing.
4. Organize front-line demonstration in various crops to generate production data and feedback information.

Based on the mandates, the following activities are performed.



1. **On farm research:** It is adaptive research which is conducted on farmers fields by the farmers with the support from scientists/subject-matter specialists. It is conducted with a farming systems perspective
2. **In service training:**
 - The KVKs has been given the responsibility of conducting in service training of grass route level extension workers like VEWs and others working in Government and non Government development organizations.
 - This training programmes are normally arranged in collaboration with the state department of agriculture and state agricultural university. The importance of such training programmes has increased since the introduction of a Panchayat Raj System in the country.
3. **Vocational training of farmers**
 - This had been the major mandate of the KVKs in the past and will continue to be so in future as well.
 - The objective is to organize long term vocation based and skill-oriented training for farmers, farm women, rural youths and school drop-outs so that they could adopt new methods of farming and increase farm income thus, the emphasis is not on crops but on vocations.
4. **Front line demonstrations (FLD) and other extensional activities:**
 - The KVKs organize front line demonstrations which aim at demonstrating the production the potentialities of newly released and pre-released production technologies of cereals, pulses and oil seeds and farmers fields

Strategies of working KVKs:

Remunerative agriculture: To increase productivity & production, minimize the post-harvest losses, value addition to enhance farmer income and livelihood security.

Climate smart agriculture: To cope up with changing climate it is necessary to train farmers in conservation of soil & water, bioconservation, reducing environmental pollution, climate resilience and increasing productivity and production of greenhouse/protected cultivation.

Food and dietary diversification agriculture: with increasing population demand for food and nutrition has been increasing

Output of KVKs

- Most of the technologies are developed in the labs but for all the technologies to reach to the farmers role of KVKs is very important.
- KVKs as institutions are enormously working for vocational training, on farm research training and transfer of latest technologies up to the farmers and rural agriculture.
- Important for overall rural development in the district.

Transfer of technology programmes of ICAR

Lab to land Programme (LLP):

- Launched in 1979 as a part of golden jubilee celebrations of ICAR. The programme intended to improve the economic condition of small, marginal farmers and landless agricultural labourers fast, SC's and ST's by transfer of improved technology developed by agricultural universities and research institutions.

Four types of implementing agencies are involved in the programme.

1. Agricultural university
2. ICAR Institutes
3. State department of agriculture
4. Voluntary organization

National Demonstration (ND):

- National Demonstration is a programme based on the concept of increasing the productivity per unit area and time by using proven agricultural technology. ICAR's National demonstration programme on major food crops was launched in 1964.
- The basic purpose of programme was to show the genetic production potentiality of new technology of major crops per unit of land and per unit of time and to encourage the farmers to adopt and popularise the technologies for accelerating production and improved cultivation practices.

Indian Council of Agricultural Research Vision-2050:

- Lead India to attaining sustainable food, nutritional, environmental and livelihoods security through agricultural research and education.
- Harness the power of science and innovation for food security, food safety, farmer prosperity and enhance natural resources base to promote inclusive growth and sustainable development.

The project-wise details are as follows:

- **Farmers FIRST:** The objectives of the 'Farmer FIRST' initiative is to move beyond the production and productivity and to privilege the complex, diverse & risk prone realities of the farmers through enhancing farmers-scientists contact with multi stakeholders participation for technology development and application. The project has been conceptualized with focus on Enriching Farmers –Scientist interface; Technology Assemblage, Application and feedback; Partnership and Institutional Building and Content Mobilization.
- **ARYA:** The ICAR has initiated a program on “Attracting and Retaining Youth in Agriculture (ARYA) in selected districts through KVKs with an objective for entrepreneurial development of Youth in Rural Areas to take up various Agriculture, allied and service sector enterprises for sustainable income and gainful employment. The identified youth are trained on entrepreneurship development skills by providing a basket of options to start agriculture ventures for self-employment.
- **Mera Gaon Mera Gaurav:** The “Mera Gaon Mera Gaurav” has been conceptualized in which scientists of ICAR and Agricultural Universities will identify villages in the vicinity of the Institutions for providing advisories and consultations to farmers for increasing farm productivity and production.



Download our **Preparation app NOW !**

Your all in one preparation solution

DAILY G.K & QUIZZES

EXAM UPDATES

TOPPER STRATEGIES

LIVE VIDEO SESSIONS

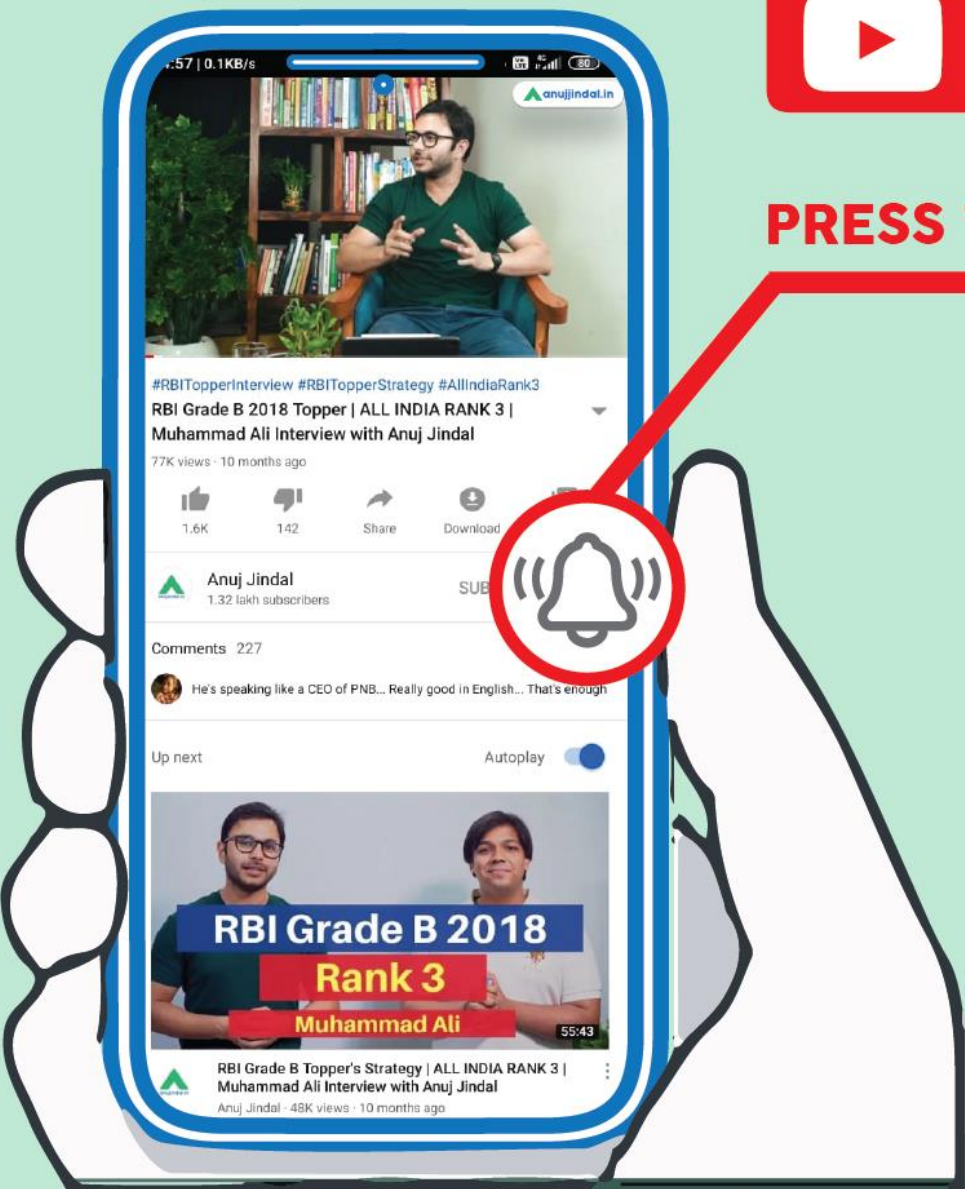
PAST YEAR PAPERS

MONTHLY G.K.

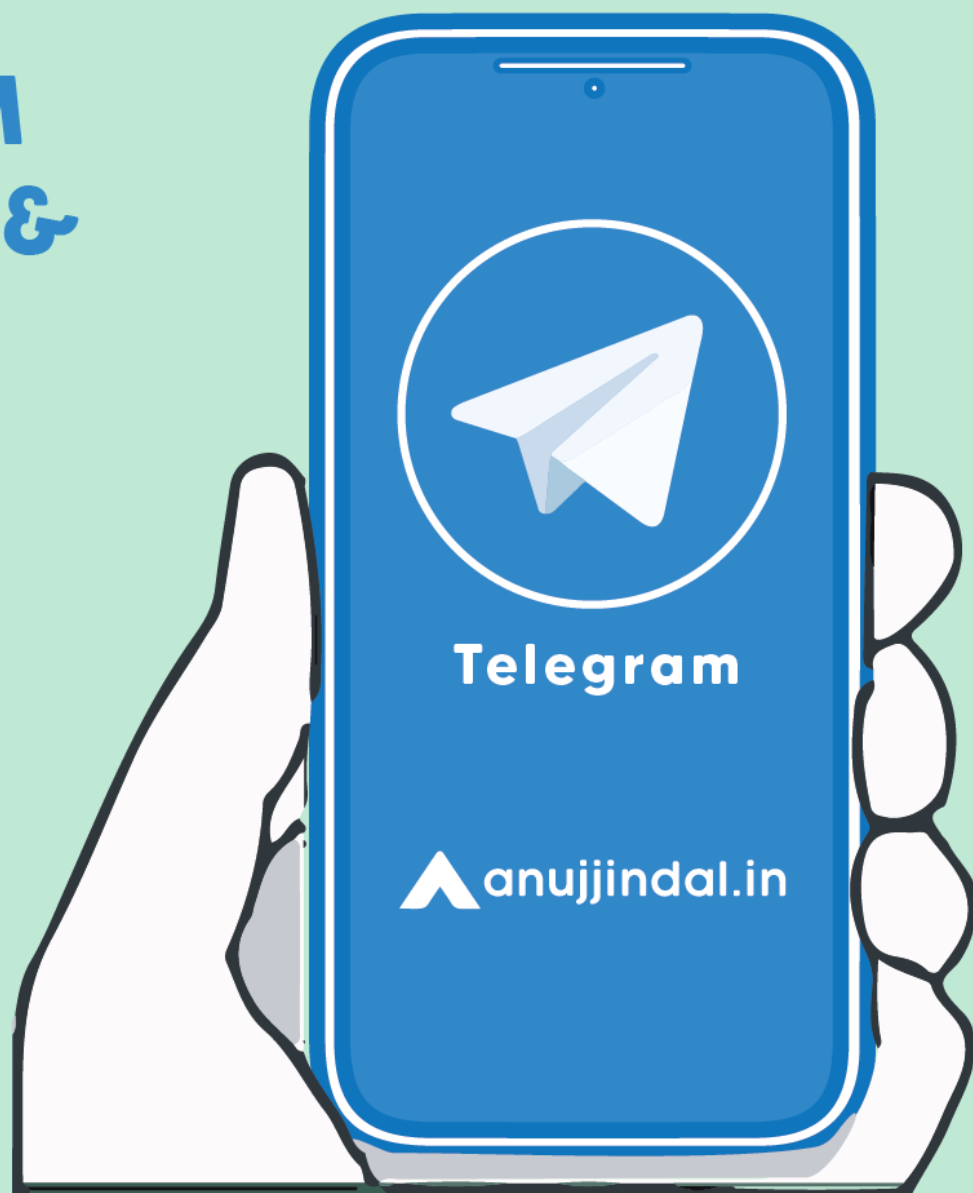


GET IT ON
Google Play



**SUBSCRIBE****PRESS THE "BELL ICON" !**

Join our
TELEGRAM
CHANNEL &
GROUP





HALL OF FAME



All Indian Rank 01

Rajendran S

SEBI



All India Rank 03

Ali

RBI



All India Rank 06

Aditya Sood

RBI



All India Rank 10

Sameer

RBI



All India Rank 11

Abhishek

RBI



Cleared RBI Grade B

Sanskar Vijay



Cleared RBI Grade B

Sanjay Meena



Cleared RBI Grade B

Yash Gupta



Cleared RBI Grade B

Ila Sahu



Cleared RBI Grade B

Argha Banerjee



Cleared RBI Grade B

Suchana Ghosh



Cleared NABARD

Vinay Verma



Cleared NABARD

Lal Chand Kumar



Cleared NABARD

Krishna Kumar Singh



Cleared NABARD

Anshu Goel



Cleared NABARD

Jatin Kumar



Cleared NABARD

Atul Yadav



Cleared SEBI

Abhishek Kumar



Cleared SEBI

Vishwanidh Singh



Cleared SEBI

Gopika Jayan



Cleared SEBI

Vasanti Kesari



Cleared SEBI

Swetha Bodagala



NET with 98 Percentile

Anushka Keshri



JRF with 96.92 Percentile

Vaishali Jadon



NET with 89.27 Percentile

Srishti Gupta



JRF with 72 Percentage

Abhishek Mohanty



NET with 68 Percentage

Dinesh Mohan



JRF with 64.66 Percentage

Adhwaresh Pandey

ENROLL NOW !

[youtube.com/anujjindal](https://www.youtube.com/anujjindal)

[anujjindal.in](https://www.anujjindal.in)

Call us at : +91 9999466225