

**Department of Extension Education and Communication Management
College of Community Science, ANDUAT**

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DEVELOPMENT PROGRAMMES

The National Agricultural Technology Project (NATP)

The National Agricultural Technology Project (NATP) is a dynamic instrument of introducing major changes in the Agricultural Research and Extension systems of the country, besides developing their capabilities to meet future challenges. The project was initiated by Ministry of Agriculture, Govt. of India with the financial assistance of World Bank and would be implemented with the assistance of MANAGE in 28 districts covering 7 states, viz. Andhra Pradesh, Bihar, Jharkhand, Himachal Pradesh, Maharashtra, Orissa and Punjab over a period of 5 years (1998-2003).

The World Bank assisted National Agricultural Technology Project (NATP) aims at improving research and extension services. The Research component of NATP is being implemented by the Indian council of Agricultural Research (ICAR) and the Extension component by the Department of Agriculture and Co-operation. The different Project Implementing Agencies (PIAs) involved in implementation of the ITD component of NATP are:

- (i) Directorate of Extension (DOE)
- (ii) National Institute of Agricultural Extension Management (MANAGE)
- (iii) NATP cell at State Head Quarters
- (iv) State Agricultural Management and Extension Training Institute (SAMETI)
- (v) District Level Agricultural Technology Management Agencies (ATMAs)

The Extension component termed as "Innovations in Technology Dissemination"(ITD) envisages an integrated extension delivery at district level and is being pilot tested in seven participating states, viz. Andhra Pradesh, Bihar, Jharkhand, Himachal Pradesh, Maharashtra, Orissa, Punjab. The purpose of this component is to test new approaches to technology transfer, new organizational arrangements, and operational procedures. One of the goal is to decentralize decision making to the district level through the creation of Agricultural Technology Management Agency (ATMA) as a registered society. The second goal is to increase farmer input into programme planning and resource allocation especially at the block level and increase accountability to stakeholders. The third goal is to increase programme coordination and integration. Funds would be provided to 28 pilot districts in seven states to create Agricultural Technology Management Agency which will bring together researchers,

extensionists, farmers and other stakeholders (including NGOs and the corporate sector) to make, on the basis of joint diagnostic studies, district Extension Plans and recommendations for expanded adaptive research to introduce innovations in technology dissemination matched to local needs and characteristics. In each of the pilot districts, an Agricultural Technology Management Agency(ATMA) would be established as a registered society for integrating research and extension activities.

National Watershed Development Programme

The Department of Land Resources in the Ministry of Rural Development is administering three area-based watershed programmes for development of wastelands/degraded lands namely Drought Prone Areas Programmes (DPAP), Desert Development Programme (DDP) and Integrated Wastelands Development Programme (IWDP) to check the diminishing productivity of wasteland and loss of natural resources.

The DPAP was launched in 1973-74 to tackle the special problems faced by those areas that are constantly afflicted by drought conditions. Presently, 972 blocks of 195 districts in 16 States are covered under the Programme. DDP was launched in 1977-78 to mitigate the adverse effects of desertification. Presently, 235 blocks of 40 districts in 7 States are covered under the Programme. IWDP has been under implementation since 1989-90. The projects under the IWDP are generally sanctioned in areas that are not covered under DDP or DPAP. Since 1 April 1995, these three programmes are being implemented on the basis of Common Guidelines for Watershed Development. Details of projects sanctioned and funds released from 1995-96 to 2007-2008 are as under:

The projects under DPAP and DDP are sanctioned for 500 ha. each while the IWDP projects cover an area of 5000-6000 ha. The cost norms for all the three schemes have been revised to Rs. 6000 per ha. Under DPAP and DDP, it is shared between the Centre and the States in ratio of 75:25. In case of IWDP, the cost sharing between the Centre and State Governments is in the ratio of 11:1.

Swarnajayanti Gram Swarozgar Yojana (SGSY)

1. This Scheme was launched after a review and restructuring of the erstwhile Integrated Rural Development Program(IRDP) and allied schemes like Training of Rural Youth for Self Employment (TRYSEM), Development of Women and Children in Rural Areas (DWCRA), Million Wells Scheme (MWS), Supply of Improved Toolkits to Rural Artisans (SITRA) & Ganga Kalyan Yojna.
2. **SGSY was launched on April 1, 1999** and is the **only self employment Programme currently being implemented.**
3. The objective of the SGSY is to bring the assisted Swarozgaris above the poverty line by providing them income generating assets through bank credit and Government subsidy.

4. The Scheme is being implemented on a 75:25 cost sharing of between the Centre and the States.
5. Since its inception, and up to April 2004, a total allocation of Rs. 6,734 crore was made available by the Centre and States. Rs. 4,980 crore, have been utilized up to April 2004, benefiting 45.67 lakh Swarozgaris.
6. **In the Union Budget 2009-10**, Allocations of Rs. 2350 Crore was made for establishing micro-enterprises in rural areas through activity clusters and group approach under Swarnjayanti Gram Swarozgar Yojana. At least 50% of the Swarozgaries will be SCs/STs, 40% women and 3% disabled.
7. In The Union Budget 2010-11 Rs. 2984 Crore have been provided in outlays including Rs. 301 crore for NE region.

Objectives:

1. **Focussed Approach to poverty Alleviation by setting up a large number of Micro enterprises in rural areas of our country.**
2. Capitalising group lending
3. Overcoming the problem of running multiple programmes overlapping each other.
4. A holistic programme of micro enterprises covering all aspects of self employment which includes organising rural poor into Self help groups.
5. Integration of various agencies like District Rural Development Agencies, Banks, Line Departments., Panchayati Raj Institutions, NGOs etc.
6. Bring the assisted poor family above BPL by providing them a mix of income generating assets like bank credit + Government subsidy.

National Livelihood Mission:

India's Ministry of Rural Development is proposing to re-design the Swarnjayanti Gram Swarozgar Yojana (SGSY) into National Livelihood Mission (NRLM).

NRLM - National Rural Livelihood Mission (Deendayal Antyodaya Yojana)

Various schemes are run for rural development. National Rural Livelihood Mission is one such governmental initiatives for the rural areas. Deendayal Antyodaya Yojana – National Rural Livelihood Mission (DAY-NRLM) is a new name given to Aajeevika – NRLM in November 2015. The initiative to move towards a demand-driven strategy enabling the states to formulate their own livelihoods-based poverty reduction action plan is at the core of the mission. DAY-NRLM is important for IAS Exam from GS-II and current affairs perspectives.

Deen Dayal Antyodaya Yojana – National Livelihoods Mission (DAY-NRLM)

The DAY-NRLM is essentially a poverty relief programme of the Central government. It was launched as 'Aajeevika – National Rural Livelihoods Mission (NRLM)' by the GOI's Ministry of Rural Development in the year 2011. It was renamed as DAY-NRLM in 2015.

The scheme is an improved version of the earlier **Swarnjayanti Gram Swarozgar Yojana (SGSY)**.

- The programme is supported partially by the World Bank.
- It aims at creating effective and efficient institutional platforms to enable the rural poor to increase their household income by means of sustainable livelihood enhancements and better access to financial services.
- Additionally, the poor would also be enabled to attain improved access to rights, public services, and other entitlements.
- The mission aims at harnessing the inherent capabilities of the poor and equip them with capacities (such as knowledge, information, tools, finance, skills, and collectivization for them to take part in the economy.
- The scheme started with an agenda to cover **7 Crore rural poor households** via Self Help Groups (SHGs) and federated institutions and support them for livelihoods collectives in 8-10 years.
- In 2021, the Union Cabinet had approved a special package worth Rs. 520 crore in the Union Territories (UTs) of Jammu and Kashmir (J&K) and Ladakh for a period of five years (till the financial year 2023-24) under the Deendayal Antyodaya Yojana- National Rural Livelihood Mission (DAY-NRLM).

A similar scheme, DAY-NULM National Urban Livelihood Mission is run for urban development and livelihood by the Ministry of Housing and Urban Poverty Alleviation.

NRLM Mission

“To reduce poverty by enabling the poor households to access gainful self-employment and skilled wage employment opportunities, resulting in an appreciable improvement in their livelihoods on a sustainable basis, through building strong grassroots institutions of the poor.”

Guiding Principles of NRLM

1. The poor have a great desire to escape poverty, and they have inherent capabilities.
2. For unleashing the innate abilities of the poor, social mobilization and strong institutions are necessary.
3. To induce social mobilization and build strong institutions and empower, an external support structure is needed that is both dedicated and sensitive.
4. This upward mobility is supported by:
 - Enabling knowledge dissemination
 - Building skills
 - Credit access
 - Marketing access
 - Livelihood services access

NRLM Values

- Including the poorest, and giving them a meaningful role in every process
- Accountability and transparency in all institutions & processes
- Community self-dependence and self-reliance

- The poor should have ownership and a key role in all their institutions – in planning, executing and monitoring

Aajeevika Grameen Express Yojana (AGEY)

- This scheme was initiated in 2017.
- It aims at providing alternative sources of livelihood to members of SHGs under the parent scheme by enabling them to offer public transport services in backward rural areas.
- The scheme offers affordable, safe, and community-monitored rural transport services to connect villages in remote areas with key amenities & services (access to health, markets, and education) for the overall economic development of the region.

Mahila Kisan Sashaktikaran Pariyojana (MKSP)

- The main objective of this sub-scheme is to empower women in agriculture by making systematic investments to enhance their participation and productivity.
- The programme also seeks to create and sustain agriculture-based livelihoods concerning women in rural areas.
- Other aims are to ensure food and nutrition in the households, enable better access to services and inputs for women, improve the managerial capabilities of women, etc.

Start-up Village Entrepreneurship Programme (SVEP)

- The objective of this sub-scheme is to promote startups in rural areas.
- The scheme will address the three key hiccups concerning rural startups:
 - A missing knowledge ecosystem
 - A missing financial ecosystem
 - A missing incubation ecosystem
- SVEP envisions the generation of sustainable self-employment opportunities for rural poor youth, facilitating them to engage effectively with the market and help generate wealth locally.

National Rural Livelihoods Project (NRLP)

The NRLP is designed to create ‘proof of concept’ and build capacities at the central and state levels, to have a facilitating environment for all states and UTs to transit to the NRLM. Rural livelihood is an important topic from the UPSC CSE exam perspectives. Hence, it is important to cover different aspects of Rural Livelihood i.e. through definition, improvement, and government intervention to enhance it.

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.

The objectives were sought to be achieved through

1. Rationalization of university research programmes and research organizations
2. Strengthening the infrastructural facilities of the State Agricultural Universities (SAUs) to undertake research on location specific problems.

The main approaches for this comprise:

1. Development/strengthening of at least one main station in each specific agro-climatic zone in the service area of the University, supported wherever necessary, by sub-stations by providing resource of staff, equipment and infrastructure needed to strengthen on-going research and to pursue new applied research.
2. Provision of resources, including infrastructure for verification of research results both at the main station and substations.
3. Provision of resources to initiate, strengthen and accelerate basic research on topics which are crucial for long term agricultural development of the state.

National Agricultural Technology Project (NATP)

National Agriculture Technology programme was conceived as a pilot project. It was launched in November, 1998. It was an initiation of government of India with World Bank Assistance. Under this project, Innovations in Technology Dissemination (ITD) component has been planned, which aims at developing a transfer of Technology (TOT) system that is demand driven, well integrated with research and financially sustainable and accountable to stake holders of agricultural development.

The innovation in technology dissemination (ITD) component of the project aimed at addressing key constraints in technology generation, validation and dissemination by introducing new institutional models and operational reform process in selected states. The states were namely Bihar, Andhra Pradesh, Himachal Pradesh, Jharkhand, Maharashtra, Orissa and Punjab. The project was pilot tested in four districts of above mentioned each states.

Objectives

The overall objective of NATP was to revitalize the agriculture technology generation assessment, refinement and dissemination systems.

1. Increase the quality and type of technologies disseminated through
 - Location specific technology development.
 - Diversification and intensification of farming systems.
 - Use of sustainability enhancing technologies.
2. Enable research and extension systems to become demand driven and responsible for solving problems of farmers.
3. Strengthen research-extension-farmers (R-E-F-) linkages.
4. Increase financial sustainability of the system.
5. Shared ownership of agricultural Technology System (ATS) by key stakeholders i.e. farmers especially poor, women and disadvantaged, public sector research and extension agencies like ICAR, SAUs, DOA etc.

Under NATP, Some institutional innovations were made in each project district. These were as follows:

1. Establishment of decentralized district level autonomous institution named ATMA (Agricultural technology management agency)
2. Establishing FAIC (Farm Information and Advisory Centre at block level).
3. Establishment of state level agricultural extension management training institutions named SAMETI (State Agricultural Extension management and training institutes).
4. Evolutions of state levels coordination and policy making body named IDWG (Inter Department Working Group).

With an objective to address the expanding role of extension certain operational reforms processes were initiated in the project districts like strategic planning, bottom up planning, promotion of farmers' interest group and farmers. Organization, farming system approach, decentralized decision making, farmer participation research, market led production, sequential extension interventions, cost and resource sharing IT and communication support, public private partnership, techno managerial focus team approach devitalizing, ongoing schemes and farmers focused and farmers accountable extension based on the performance of the pilot study.

National Agricultural Innovation Project (NAIP)

The Government of India has launched the National Agricultural Innovation Project with a credit support of the World Bank. The project will run up to June 2012. The overall objective of the project is to facilitate accelerated and sustainable transformation of Indian agriculture for rural poverty alleviation and income generation by the application of agricultural

innovations through collaboration among public research organizations, farmers' groups, NGOs, the private sector and the civil societies and other stakeholders.

The important objectives of NAIP are –

1. To build the critical capacity of- the Indian Council of Agricultural Research (ICAR) as a catalyzing agent for management of change of the Indian National Agricultural Research System (NARS).
2. To promote research in the production-to-consumption system mode in the priority areas/themes to enhance agricultural productivity and profitability and, nutrition, income and employment of the rural stakeholders.
3. To improve livelihood security of the rural people living in selected disadvantaged regions through technology-led innovative systems which encompass the wide process of social and economic change among all the stakeholders.
4. To build capacity to undertake basic and strategic research in strategic areas of agricultural sciences to meet the technology development challenges in the immediate and predictable future.

Key Components of NAIP

1. **Component -1 Institutional development by strengthening of ICAR role:** Strengthening the ability of the ICAR to act as a catalyzing agent for rapid transformation of Indian agricultural research system. The emphasis in this component is to change the mindset and strengthen the ability of the system to change according to context. Substantial resources under this component are intended to be spent on SAUs.
2. **Component-2: Establishment of consortia for research on production to consumption systems:** Establishment of value chain (production to consumption system) promoting consortia for raising productivity, profitability and competitiveness. Value chains in rural areas are creative income generating and employment intensive options.
3. **Component-3: Establishment of consortia to for research on sustainable rural livelihood security in disadvantaged areas:** Establishment of system and action research consortia for livelihood improvement in disadvantaged regions and vulnerable groups. During transformation of agriculture, regional and class disparities are bound to crop up. Research should consider the needs of the poor and disadvantaged regions and vulnerable groups.
4. **Component-4: Establishment of consortia to strengthen basic and strategic research in agricultural science:** Support to basic and strategic research to address challenging problems of national and global importance. Some' outstanding problems cutting across regions, production systems requiring innovative, cutting edge research, education and extension will be funded.

Technology Assessment and Refinement

The Technology Assessment and Refinement (TAR) was a site specific project with farmer's participation and provision of technical solutions to existing problems. It is interdisciplinary and interactive in approach. The project started in 42 centres of selected ICAR Institutes and SAU's.

The objectives include multifaceted directions for ensuring productivity of small production systems and ensuring profitability. The programme also includes on – farm value addition of agricultural products, bi-products and wastes for greater economic dividends, addresses gender specific issues and assesses the impact of refined technologies in different production systems. The research based findings under NATP are carried out through five Agro-Eco Systems (AES). The technologies thus assessed and refined are finally passed on to district extension system for implementation of innovation through Agricultural Technology Management Agency.

Institutional Village Linkage Programme (IVLP)

IVLP is an innovative program developed by the ICAR to help scientists to have direct interaction with the farming community so that appropriate technologies are developed for farmers. Here research, extension and farmers establish firm links by carrying together the assessment and refinement functions in the technology development and dissemination process. The IVLP is being implemented through ICAR institute headquarters, SAUS headquarters, and Regional Research Stations, Zonal Research Stations of the ICAR institute, SAUs and KVKs. The centers selected for the purpose have required infrastructural facilities, viz. in terms of team of scientists, laboratory and transport. Each centre has to adopt a village or cluster of villages representing of the district.

Objectives

1. To introduce technological intervention with emphasis on stability and sustainability along with productivity of small production systems.
2. To introduce and integrate the appropriate technologies to sustain technological interventions and their integration to maintain productivity and profitability taking environmental issues into considerations in comparatively well defined production systems.
3. To introduce and integrate the appropriate technologies to increase the agriculture productivity with marketable surplus in commercial farm production systems.
4. To facilitate adoption of appropriate post - harvest technologies for conservation and on - farm value addition of agriculture products, by products and wastes for greater economic dividend and national priorities.
5. To facilitate adoption of appropriate technologies for removal of drudgery increased efficiency and higher income of farm woman.

6. To monitor socio-economic impact of the technologies intervention for different production systems.

Methodology of implementation

Methodology of implementation of IVLP as per ICAR guidelines are given below

- **Selection of participating Institutions**
 1. ICAR and ICAR Institutions
 2. SAUs and their Regional Research Stations/Zonal Research Stations.
 3. Krishi Vigyan Kendras Based on availability of multi-disciplinary team of scientists, laboratory facilities and transport etc.
- **Selection of village**
 1. One village or a cluster of villages to cover about 1000 farm families.
 2. The selected village should not be far away from the research station
 3. Should have access through road
 4. Should be relatively poorly developed in agriculture
- **Agro – Eco-System analysis**

Using Participatory Rural Appraisal Methods to gather information about

 1. the resource availability with farmer's present production practices
 2. the extent of impact of the previous programs in the area.
- **Constitution of multi-disciplinary team of scientists**
 1. **Core team:** Those whose disciplines are essentially needed.
 2. **Optional team:** The other disciplines depending upon the needs of the area.
- **Selection of team leader**
- **Provide training to the multi-disciplinary team**
- **Plan for Technology Assessment and Refinement**
 1. Intervention points based on problem-cause analysis
 2. Basket approach considering the problems
 3. Weightage to indigenous knowledge
- **Implementation of action plan**
 1. On farm research
 2. Demonstration
 3. On farm trials
- **Monitoring and Evaluation**
 1. Regular visit of team members
 2. Technical staff posted for the village
 3. IVLP card separately devised for the purpose.

SWARNJAYANTI GRAM SWAROZGAR YOJANA GUIDELINES (As per Reserve Bank of India Guidelines) The Ministry of Rural Development, Government of India has launched a new programme known as "Swarnjayanti Gram Swarozgar Yojana" (SGSY) by restructuring the existing schemes namely : · Integrated Rural Development Programme (IRDP) · Training of Rural Youth for Self Employment (TRYSEM) · Development of Women & Children in Rural Areas (DWCRA) · Supply of Improved Toolkits to Rural Artisans (SITRA) · Ganga Kalyan Yojana (GKY) · Million Wells Scheme (MWS) The Scheme The SGSY Scheme is operative from 1st April 1999 in rural areas of the country. SGSY is holistic Scheme covering all aspects of self-employment such as organization of the poor into Self Help Groups, training, credit, technology, infrastructure and marketing. The scheme will be funded by the financial institutions, Panchayat Raj Institutions, District Rural Development Agencies (DRDAs), Non Government Organisation (NGOs), Technical institutions in the district; will be involved in the process of planning, implementation and monitoring of the scheme. NGO's help may be sought in the formation and nurturing of the Self Help Groups (SHGs) as well as in the monitoring of the progress of the Swarozgaris. Where feasible their services may be utilized in the provision of technology support, quality control of the products and as recovery monitors cum facilitators. The scheme aims at establishing a large number of micro enterprises in the rural areas. The list of Below Poverty Line (BPL) households identified through BPL census duly approved by Gram Sabha will form the basis for identification of families for assistance under SGSY. The objective of SGSY is to bring assisted family above the poverty line within three years by providing them income generating assets through a mix of bank credit and Government subsidy. The rural poor such as those with land, landless labour, educated unemployed, rural artisans and disable are covered under the scheme. The assisted families known as Swarozgaris can be either individuals or groups and would be selected from BPL families by a three member team consisting of Block Development Officer, Banker and Sarpanch. SGSY will focus on vulnerable section of the rural poor. Accordingly the SC/ST will account for at least 50%, Women 40% and the disabled 3% of those assisted. Skill Upgradation Once the person or group has been identified for assistance, their training needs also to be ascertained with reference to Minimum Skill Requirement (MSR). The assessment regarding technical skills would be made by line departments and that of managerial skills by the banker, while scrutinising the loan applications. Swarozgaris possessing skills will be put through basic orientation programme which is mandatory. This programme includes elements Book Keeping, knowledge of market, identification and appraisal, acquaintance with product costing, product pricing, familiarisation with project financing by banks as well as basic skills in the key activity identified. It will be for a short duration of not more than 2 days. BDOs, Bankers and line departments will act as resource persons for imparting the training. The training expenditure will be met by DRDAs. For those beneficiaries who need additional skill development/Upgradation of skills, appropriate training would be organised through Government Institutions, it is, Polytechnics, Universities, NGOs etc. Swarozgaris will be

eligible for loans under SGSY when they possess Minimum Skill Requirement, and it will be disbursed only when they have satisfactorily completed the skill training. For this training, Swarozgaris will be entitled for financial assistance if they are required to undergo training for more than a week. The rate of assistance would be fixed locally. The bank will provide loans to the Swarozgaris for this purpose. However, as the credit has to be extended before the project is taken up, notwithstanding the general security norms for lending under the scheme, banks may extend loans for skill development training with or without collateral/third party guarantee at their discretion.

National Innovations in Climate Resilient Agriculture (NICRA)

National Innovations in Climate Resilient Agriculture (NICRA) is a network project of the Indian Council of Agricultural Research (ICAR) launched in February, 2011. The project aims to enhance resilience of Indian agriculture to climate change and climate vulnerability through strategic research and technology demonstration. The research on adaptation and mitigation covers crops, livestock, fisheries and natural resource management. The project consists of four components viz. Strategic Research, Technology Demonstration, Capacity Building and Sponsored/Competitive Grants. The project was formally launched by the Hon'ble Union Minister for Agriculture & Food Processing Industries Shri Sharad Pawarji on 2nd February 2011.

Objectives

With this background, the ICAR has launched a major Project entitled, **National Initiative on Climate Resilient Agriculture (NICRA)** during 2010-11 with an outlay of Rs.350 crores for the XI Plan with the following objectives.

- To enhance the resilience of Indian agriculture covering crops, livestock and fisheries to climatic variability and climate change through development and application of improved production and risk management technologies
- To demonstrate site specific technology packages on farmers' fields for adapting to current climate risks
- To enhance the capacity building of scientists and other stakeholders in climate resilient agricultural research and its application.

Project Components

Both short term and long terms outputs are expected from the project in terms of new and improved varieties of crops, livestock breeds, management practices that help in adaptation and mitigation and inputs for policy making to mainstream climate resilient agriculture in the developmental planning. The overall expected outcome is enhanced resilience of agricultural production to climate variability in vulnerable regions. The project is comprised of four components.

- 1) Strategic research on adaptation and mitigation
- 2) Technology demonstration on farmers' fields to cope with current climate variability
- 3) Sponsored and competitive research grants to fill critical research gaps
- 4) Capacity building of different stake holders

KIRAN (Knowledge Innovation Repository of Agriculture in the North East)

KIRAN (Knowledge Innovation Repository of Agriculture in the North East) is a user platform instrumental in harnessing the power of scientific knowledge and technology innovation for strengthening agricultural production systems in NE Region through dynamic partnership and convergence among the diverse stake holders. Achieving sustainable food production to feed the increasing populations of the fragile lands of the NE Region is an enormous challenge. ICAR Research Complex, Barapani envisages an information portal for agriculture to ensure an efficient use of knowledge and technology products, promoting innovative approaches and solutions aimed at improving human resource with the right knowledge skills in the NE region.

Technology and Innovation led Sustainable Agriculture ensuring food, nutritional and livelihood security

FOCUS Conducting research and formulating development programmes serve no purpose, if benefits do not reach the end users. Information has to flow from the research institutes to farmers, consumers, policy makers and other Stake Holders without delay and loss. On the other hand achieving sustainable food production to feed the increasing populations of the fragile lands of the NE Region is an enormous challenge. Indian Council of Agricultural Research envisages a NE Cell for agriculture, to ensure an effective and efficient use of knowledge and technology products, promoting innovative approaches and solutions aimed at improving human resource with right knowledge skills in the NE region. The portal on agriculture, through its Knowledge Management System need to act as an efficient warehouse and repository of relevant information, knowledge and technology in agriculture and allied sectors. On the other hand having a platform to foster linkages among partners and collaborate with public, private, state and regional organizations functioning in the region will be of immense help to unleash the true potential of agriculture in North East India. Therefore to provide a suitable platform by harnessing the powers of Information Technology, KIRAN (Knowledge Innovation Repository for Agriculture in Northeast) was conceptualized and came into being on 16th July, 2012. KIRAN is an umbrella arrangement to harness the power of scientific knowledge and technology innovation for strengthening food production system in NE Region through dynamic partnership and convergence among the stakeholders. KIRAN is envisaged to act as a catalyst for strengthening our institutional capacity through fruitful convergences and networking in the region. At the same time it is an arrangement for providing technology and consultancy for development through interfacing users with technology and service providers. KIRAN is also going to facilitate accessibility and availability of technology solutions to stakeholders with a focus on inclusiveness and will

encourage farming system based interventions to provide support for agro-ecological planning and development.

OBJECTIVES

1. Create a knowledge and technology repository for NE region.
2. Act as an information, knowledge and technology gateway.
3. Provide a platform for interface among stakeholders in agricultural development.
4. Foster linkages among partners and collaborate with State and regional organizations.
5. Act as a catalyst to strengthen the existing institutional capacity through convergence and networking.
6. Provide Technology and Development consultancy along with details of technology dynamics and kinetics.
7. Programme sustainable agricultural developments in the region and provide support for future strategy formulation in research and extension.

Contemplated partners All ICAR institutes and Regional Centres in NE Region, Central Agriculture University, Assam Agriculture University, North Eastern Hill University, All Central Universities of NEH, State Departments of Agriculture, Horticulture and Veterinary of the NE States, North Eastern Council, National Bank of Agriculture and Rural Development, APEDA, Spice Board, State Biodiversity Board, NIRD, NEIST (North East Institute of Science and Technology, Jorhat), NESSC, Meteorological Departments, National Institute for Entrepreneurship Development, ZPD, Prominent NGOs and Agro-based Industry, All Research Organizations of NEH, All Financial Institutions that can serve the agriculture sector etc.

Some other development programmes

1. Deen Dayal Upadhyay Grameen Kaushal Yojna:

- I.** This is a placement linked skill development scheme for rural poor youth.
- II.** It was launched by on 25 September 2014 by Union Ministers Nitin Gadkari and Venkaiah Naidu on the occasion of 98th birth anniversary of Pandit Deendayal Upadhyaya.
- III.** It aims to target youth, under the age group of 15–35 years.
- IV.** A total of 52000 candidates have been skilled under this programme till 2014-15.

2. Roshni: Skill Development Scheme for Tribals:

- I.** The Ministry of Rural Development on 7 June 2013 launched a new skill development scheme designed to offer employment to tribal youth in 24 Naxal -affected districts.
- II.** The scheme, which is named Roshni is supposed to provide training and employment to an anticipated 50000 youth in the 10-35 years age group, for a period of three years.
- III.** As per the Ministry 50 per cent of the beneficiaries of the scheme will be women only.
- IV.** The scheme is designed in light of the Himayat project model, which was launched in

Jammu and Kashmir has been implemented in Sukma, Chhattisgarh, and West Singhbhum, Jharkand, on a pilot basis over the last 18 months.

3. Swachhh Bharat Mission:

- I.** The Prime Minister launched Swachh Bharat Mission on the birth anniversary of Mahatma Gandhi on 2nd October, 2014.
- II.** The concept of Swachh Bharat Abhiyan is to pave access for every person to sanitation facilities including toilets, solid and liquid waste disposal systems, village cleanliness and safe and adequate drinking water supply.
- III.** The programme is to be implemented by Ministry of Drinking Water and Sanitation.
- IV.** An action plan has been drawn up for **Swachh Bharat to become a reality by 2019**, the 150th birth anniversary of Mahatma Gandhi.
- V.** The Mission aims to triple the growth percentage of toilet from present 3% to 10% by 2019.

4. Sansad Adarsh Gram Yojna:

- I.** This programme was launched by the Prime Minister Narendra Modi on the birth anniversary of Lok Nayak Jai Prakash Narayan on 11 October 2014.
- II.** Ministry of Rural Development will be the supervising authority for this programme.
- III.** Under this programme each Member of Parliament will take the responsibility for developing physical and institutional infrastructure in three villages by 2019.

5. Heritage Development and Augmentation Yojna (HRIDAY):

- I.** This scheme was launched on the 21 January 2015 under the care of The Union Ministry of Urban Development.
- II.** Its aim is to preserve and rejuvenate the rich cultural heritage of the country.
- III.** In the initial phase of HRIDAY, 12 heritage cities have been identified which will be rejuvenated and developed. Union Government will provide 500 crore rupees to these 12 cities.

6. Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS):

- I.** National Rural Employment Guarantee Act 2005, was launched on the 2nd Feb.2006. Now the new name of this scheme is "Mahatma Gandhi National Rural Employment Guarantee Act" (or, MGNREGA).
- II.** This scheme is an Indian labour law and social security measure that aims to provide 'right to work' to the people falling Below Poverty Line.
- III.** It guarantees 100 days employment in a year to the village people.
- IV.** Fifty percent workers should be women.
- V.** Its 90% funding is borne by the central government and 10% by the state government.

7. National Rural Livelihood Mission:

- I.** This scheme was restructured from the Swarn Jayanti Gram Swarajgar Yojna in 2011.
- II.** National Rural Livelihoods Mission (Aajeevika) is aimed to empower the women's self-help group model across the country.
- III.** Under this scheme govt. provides loan up to 3 lakh rupee at the rate of 7% which could be lowered to 4% on the timely repayment.

8. Pradhan Mantri Gram Sadak Yojna:

- I.** Initially it was 100% centrally funded scheme, launched on the December 25, 2000.
- II.** After the recommendation of 14th finance commission report now expenditure will be shared by the centre and state at ratio of 60:40.
- III.** The main aim of this scheme is to provide all weather road connectivity to the rural areas whose population is more than 500 persons and in terms of hilly areas it is 250 persons.
- IV.** This scheme is launched by the Ministry of Rural Development.

9. Training to Rural Youth for Self Employment (TRYSEM)

- I.** This centrally sponsored programme was started on august 15, 1979.
- II.** The main target of this scheme was to provide technical and business expertise to rural BPL people who are in the age group of 18-35.
- III.** This programme has been merged with Swarn Jayanti Gram Swarajgar Yojna on April 1, 1999.

10. Antyodaya Anna Yojna (AAY):

- I.** The scheme was launched by the Prime Minister Atal Bihari Bajpayi on the 25 December 2000.
- II.** The scheme provides food grains to around 2 cr. Below Poverty Line (BPL) families at a very subsidized rate.
- III.** Total 35 kgs of food grains is provided to a family. Rice is provided at the rate of Rs. 3/kg and wheat at 2 Rs.2/kg.

11. Village Grain Bank Scheme:

- I.** This scheme was implemented by the department of food and public distribution.
- II.** Main objective of this scheme is to provide safeguard against the starvation during the period of natural calamity or during lean season when the marginalized food insecure households do not have sufficient resources to purchase rations.
- III.** Under this scheme needy people will be able to borrow food grains from the village grain bank and return it when they have abundant food.

12. National Rural Health Mission:

- I.** The National Rural Health Mission (NRHM), now under National Health Mission is initiated on 12 April, 2005.
- II.** Main aim of this plan is to provide accessible, affordable and accountable quality health services even to the poorest households in the remotest rural regions.
- III.** Accredited social health activists (ASHA) scheme is also operational under this scheme.
- IV.** It is run by the ministry of health and family welfare.

13. Aam Aadmi Bima Yojna:

- I.** It was launched on october2, 2007.
- II.** It's a social security scheme for rural households.
- III.** Under this scheme one member of the family is covered.
- IV.** The premium of Rs. 200 per person per annum is shared by the state and central government.
- V.** The insured person need not to pay any premium if his/her **age is between the 18 years to 59** years.

14. Kutir Jyoti Programme:

- I.** This programme was launched in 1988-89.
- II.** Its main motive was to improve the standard of living of schedule castes and schedule tribes including the rural families who live below the poverty line.
- III.** Under this programme, a government assistance of Rs. 400 is provided to the families who are living below the poverty line for single point electricity connections in their houses.