National e-Governance Plan in Agriculture (NeGP-A) Initiatives

Boppana Jagadeeswari[1], Harini Nayana[2], Lalitha Navya Challa[2], Acharitha Gundam

Ph. D. Scholar[1], Dept. of Agricultural Extension, Professor Jayashankar Telangana State Agricultural University, Rajendranagar, Hyderabad, Telangana, India
PG Scholar[2], Dept. of Agricultural Extension, PJTSAU, Rajendranagar, Hyderabad
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Need of e-Agriculture in India:

➢ Empowering farmers with relevant and timely information about different crop varieties.

➢ To reduce farming risks by providing information on weather, cultivation techniques, seeds and fertilizers, plant nutrients and water usage.

➢ To reduce knowledge gaps and increase knowledge sharing for increasing productivity and boosting growth in rural areas.

➢ Funds and liability coverage through agriculture finance and agriculture insurance.

➢ To provide assistance from universities on new techniques used to increase productivity and yield.

Agriculture and ICTs in India:

➢ The goal of 4 percent growth in agriculture can be achieved only by increasing productivity per unit of scare resources available with the effective use of technology. (Planning Commission, GOI).

➢ The National Agriculture Policy emphasizes the use of Information Technology (IT) for achieving a more rapid development of agriculture in India.

➢ The Department of Agriculture and Cooperation, therefore, is in the process of preparing a National e-Governance Plan in Agriculture (NeGP-A) for a more focused implementation of e-governance activities in the agriculture sector.

➢ In order to promote e-governance in agriculture at the centre and provide support to states/UTs for the same, the Department of Agriculture and Co-operation

implemented a central sector scheme, "Strengthening/Promoting Agricultural Information Systems' during the Tenth Plan.

➢ The scheme has the following components:

- Development of agricultural informatics and communication.
- Strengthening of IT apparatus in agriculture and cooperation in states and UTs (AGRISNET).
- IT apparatus at Department headquarters and its field offices.
- Agricultural Resources Information Systems (AgRIS).
- Kisan Call Centres.

e-governance:

The "e" in e-governance stands for 'electronic'. Thus, e-Governance is basically associated with carrying out the functions and achieving the results of governance through the utilization of ICT (Information and Communications Technology).

Types of Government Interaction in e-governance

1. G2G: Government to Government
2. G2C: Government to Citizen
3. G2B: Government to Business
4. G2E: Government to Employee

National e-governance Plan:

To bring the benefits of Information and Communication Technology (ICT) and to bring transparency with timely and hassle-free delivery of various services, the Government of India has initiated an e-Governance program in the country in the late 1990s. After that, Union Government has approved the National E-Governance Plan (NEGP), comprising of 27 Mission Mode Projects (MMPs) and 8 components on May 18, 2006, to give a boost to e-Governance initiatives in India. Department of Electronics and Information Technology (DEIT) and Department of Administrative Reforms and Public Grievances (DAR&PG) have formulated the National E-Governance Plan (NEGP).

National e-governance Plan in Agriculture (NeGP- A):

The Department of Agriculture and Cooperation (DAC), Ministry of Agriculture has decided to implement National e-Governance Programme (NeGP) in the Agricultural Sector as a Mission Mode Project (A-MMP), covering the Agriculture sector, Livestock sector and

Fisheries sector. National e-Governance Plan in Agriculture (NeGP-A) was initially launched in 2010-11 in 7 pilot States as a part of Sub Mission on Agricultural Extension (SMAE) under National Mission on Agricultural Extension & Technology (NMAET). In 2014-15, the scheme was further extended for all the remaining States and 2 UTs. The scheme has been extended up to 31.03.2021. The A-MMP aims to address the needs of the farming community and its other related stakeholders, through the provision of relevant information and services through the various delivery channels available in their vicinity for assisting them in making a rational decision.

The objectives of NeGP-A are:

1. Improve access of farmers to timely and relevant information & services throughout crop-cycle
    - By providing Multiple delivery channels to access information
    - By reducing the time between generation and dissemination of information
    - By providing information to the farmer through a uniform platform

2. Bringing farmer centricity & service orientation to the programs by providing location specific and up-to-date crop management related information in terms of:
    - GAP – how many days, season specific, crop specific, location/zone specific
    - POP – how many days, season specific, crop specific, location/zone specific
    - Providing personalized advisory services

3. Increasing effectiveness of government service delivery in
    - Certification and licenses related to Manufacturing and Marketing through the use of ICT
    - Providing easier and approachable channels for grievance registration and tracking

4. More effective management of schemes of DACFW thru process redesign aimed at
    - Effective Monitoring of the Schemes (timeliness of implementation etc)
    - Reducing the time required for data consolidation and reporting of schemes at all levels

5. Enable private sector participation to benefit farmers by providing an integrated platform to promote value added services in

- Extension
- Marketing (both input and output)
- Post-harvest & Storage

Services offered:

In the first phase of the development of NeGP-A, more than 100 services were identified and were prioritized into 22 services after wide-ranging consultations with various stakeholders. These were finally clustered into 12 services from the point of view of development and implementation. They are:

➢ Information on pesticides, fertilizers and seeds.

➢ Information soil health.

➢ Information on crops, farm machinery and, training and Good Agricultural Practices (GAPs).

➢ Information on forecasted weather and agro-met advisory.

➢ Information on prices, arrivals, procurement points, and providing interaction platform.

➢ Electronic certification for exports and imports.

➢ Information on marketing infrastructure.

➢ Monitoring implementation/evaluation of schemes and programs.

➢ Information on fisheries.

➢ Information on irrigation infrastructure.

➢ Drought relief and management and

➢ Livestock management

(https://www.manage.gov.in/studymaterial/e-gov-E.pdf)

Various e-governance initiatives in agriculture:

DACNET: DACNET is an e-governance Project executed by NIC to facilitate Indian 'Agriculture-on-line'. It is built using key criteria such as ease of use, speed of delivery, SLAs, simplicity of the procedure, single window access, low incidence of errors, reduction of corruption and affordable services. DACNET project has reduced the time taken to deliver services while making information available online. (http:// dacnet.nic.in)

Seednet India Portal: Seed Informatics Network has been launched which has transformed the very character of the seed industry. It is a national portal for information on the quality of seeds. It provides information related to quality control, seed replacement rate, seed multiplication ratio, breeder seeds, foundation seeds, certified seeds, etc. Details related to Seed Bil 2004, seed varieties, seed banks, seed testing labs, seed dealers, test laboratories, certification agencies, etc. are also available in this portal. (http://seednet.gov.in);

Kisan Call Centres: In order to harness the potential of ICT in Agriculture, the Ministry of Agriculture launched the scheme "Kisan Call Centres (KCCs)" on January 21, 2004. The main aim of the project is to answer farmers' queries on a telephone call in their dialect. A countrywide common eleven-digit Toll-Free number 1800-180- 1551 has been allotted for Kisan Call Centre. Call center services are available from 6.00 am to 10.00 pm on all seven days of the week at each KCC location

Various mobile applications have been developed for this project. Some of the major mobile applications developed include:

1. Kisan Suvidha: This application gives information about the weather, dealers, market price, plant protection and expert advisories, among others.

2. Pusha Krishi: It provides information on the latest farming and crop technologies.

3. Crop Insurance: The Crop Insurance application provides information about various insurance schemes that are present for crops and their premium rates.

4. Agri Market: Using this application, the farmer can know about the existing market prices of various crops.

5. India Weather: It provides information on the weather prevailing for the next three or four days in 300 different cities across the country.

Besides mobile applications, there are also plenty of web applications that have been developed. These applications include:

1. Farmers' Portal: The website is exclusively meant for farmers and provides information about various seeds, fertilizers, pesticides, dealers, and ethical farming practices.

2. mKisan Portal: The platform enables scientists and other officials to send targeted text and voice messages to the farmers, advising them about various issues persisting in agriculture and the sectors related to it.

3. Crop Insurance Portal: This website provides information related to getting crops insured and various crop insurance schemes available throughout the country.

4. Participatory Guarantee System of India (PGS) Portal: This portal helps farmers to take an organic approach towards farming. https://www.indiafilings.com/learn/national-e-governance-plan-in-agriculture/)

Recent Developments under the scheme:

The new initiatives launched under NeGP-A are:

Unified Farmer Service Platform (UFSP):UFSP is a combination of Core Infrastructure, Data, Applications and Tools that enable seamless interoperability of various public and private IT systems in the agriculture ecosystem across the country. UFSP is envisaged to play the following role:

- Act as a central agency in the Agri ecosystem (like UPI in the e Payments).
- Enables Registration of the Service Providers, public and private.
- Enables Registration of the Farmer Services G2F, G2B, B2F and B2B.
- Enforces various rules and validations required during the service delivery process.
- Acts as a Repository of all the applicable standards, API's and formats.
- It shall also act as a medium of data exchange amongst various schemes and services to enable comprehensive delivery of services to the farmer.

Farmers Database:

For better planning, monitoring, policy-making, strategy formulation and smooth implementation of schemes for the farmers a nationwide Farmers Database linked with land records is being created with the following objective:

- Develop a nationwide database of farmers
- Keep a record of unique farmers.
- Unique farmer ID (FID) to uniquely identify a farmer.
- To know benefits availed by a farmer under various schemes.

This Centralized Farmers Database shall be useful for various activities like issuing soil health cards, dissemination of crop advisories to the farmers, precision farming, smart cards for farmers to facilitate e-governance, crop insurance, settlement of compensation- claims, grant of agricultural subsidies, community/village resource centres, etc.

(https://agriculturepost.com/national -e-governance -plan-in-agriculture-digitalising-farming-practices/).

Conclusion:

To meet the information needs of farmers, access and usage of ICTs services should be strengthened. Realizing the significance of new digital & emerging technologies, the Committee on Doubling Farmers' Income (DFI) has also recommended further expanding and augmenting the digital agriculture initiatives by focusing on modern management of agriculture viz. Remote Sensing; Geographical Information System; Data Analytics and Cloud Computing; Artificial Intelligence & Machine Learning; Internet of Things; Robotics, Drones & Sensors and Block-chain.

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