



IAS PARLIAMENT

Information is a Blessing

A Shankar IAS Academy Initiative

GIST OF KURUKSHETRA

DECEMBER 2018

Shankar IAS Academy™

Door No 18, New Plot No 259 /109,
AL Block, 4th Avenue, Shanthi Colony,
Annanagar, Chennai - 600040.



I N D E X

KURUKSHETRA – DECEMBER 2018

| | |
|---|---|
| 1. MODERN TECHNOLOGY IN IMPLEMENTATION OF RURAL DEVELOPMENT PLANS | 3 |
| 2. TECHNOLOGY INNOVATION FOR SOIL CONSERVATION | 4 |
| 3. KNOWLEDGE MANAGEMENT THROUGH DIGITAL TECHNOLOGIES..... | 5 |
| 4. DIGITAL HEALTH SERVICES:KEY INITIATIVES | 7 |
| 5. DIGITAL TECHNOLOGY IN FINANCIAL INCLUSION..... | 8 |
| 6. USE OF ICTs IN EDUCATION..... | 9 |



KURUKSHETRA – DECEMBER 2018

1. MODERN TECHNOLOGY IN IMPLEMENTATION OF RURAL DEVELOPMENT PLANS

What are the steps taken in utilising the modern technology?

- The Ministry of Rural Development has been making sincere efforts to bring prosperity and well being to the villages through its programs and schemes.
- Greater emphasis has been laid on adopting modern technologies, scientific method and cutting-edge techniques to achieve the desired results of all rural development schemes.

Pradhan Mantri Awas Yojana- Gramin

- PMAY-G was launched to achieve housing for all by 2022.
- The use of modern technology in this scheme has ensured transparency as well as helped in pace of implementation process.
- In each stage of housing construction, information technology based **MIS-AwaSoft**, mobile based app Awas app and space technology are being used on a large scale for monitoring purpose.
- All transfers of fund to the beneficiaries are done through the

Electronic Fund Transfer Order (FTO).

- **Rural Housing Knowledge Network (RHKN)** has been started in collaboration with IIT Delhi.
- It was started with the objective to prepare the multilingual web-portal in the public sector.
- It's another objective is to prepare comprehensive nationwide compilation of information related to business houses, institutions and practices associated with affordable and sustainable solutions of rural housing.

Pradhan Mantri Gram Sadak Yojana

- PMGSY II has been started with the objective to improve the existing rural road networks.
- A mobile application **Aarambh** has been developed which helps in collecting the necessary data for preparation of inventory of roads.
- The app also collects data regarding **GIS based mapping** for survey of road surface, cost estimation and annual road maintenance plans and monitoring works.
- National Institute of Rural Development and Panchyati Raj has issued guidelines on technology initiatives for promoting cost **effective technology** in the **construction of**



rural roads using new materials, **waste materials and locally available material.**

- Further **Meri Sadak app** is in place to resolve the complaints related to PMGSY roads.

MGNREGA

- It is the scheme of providing at least 100 days of unskilled manual labor to each family in the form of guaranteed employment.
- Under an exclusive initiative called **Geo MGNREGA** space technology is used for geo tagging of all assets created through MGNREGA.
- **Jan MGNREGA** was launched with a large scale feedback mechanism for the public.
- In the case of simplifying the fund flow system Ministry of Rural development has launched **National Electronic fund Management System (NEFMS).**

2. TECHNOLOGY INNOVATION FOR SOIL CONSERVATION

‘If we feed the soil it will feed us and only productive soil can support a prosperous people’

- Soil is dynamic system, consisting of organic and mineral matters, air, water and living organisms along with their interactive processes.

- It is natural organo-mineral product formed by natural forces and maintained by the interaction between micro organisms and plants.

What is Soil Health?

- Soil health is defined as the capacity of a specific kind of soil to sustain plant and animal productivity.
- However the function of soil is within natural or managed ecosystem boundaries.
- It is also about the quality of maintaining or enhancing water and air quality and support human health and habitation.
- Soil health concept involves integration of physical, chemical and biological properties of a soil.

What are the good practices for soil health preservation?

- The measures such as Soil nutrient balance and Cycles, Mitigating Soil Salinization and Alkalinization, minimizing soil contamination and conserving soil biodiversity can be useful conserving the soil health.

Some of the measures are discussed as follows

Prevent Soil erosion

- Soil erosion causes the loss of top layer soil containing organic and mineral nutrient pools



- Mulching, minimum tillage, no-till by direct seeding, strip cropping, agro-forestry, shelter belts and reduced stocking rates and grazing intensities are the measures to prevent it.

Increase soil organic matter content

- It plays a central role in maintaining soil functions and preventing soil degradation.
- Applying animal manure or other carbon rich wastes, using composts and implementing crop rotation are the ways to increase the organic content matter.

Technological Options: Conservation Agriculture

- It refers to the system of raising crops without tilling the soil while retaining crop residues on the soil surfaces.
- It permits the management of soils for agricultural production without excessively disturbing the soil.
- It is a concept for optimizing the crop yield, economics and environmental benefits.

Features of Conservation Agriculture

- Minimum Soil Disturbance by adopting no tillage
- Maximum soil covers by leaving and managing the crop residues on the soil surface
- Adopt spatial and temporal crop sequencing.

Advantages of CA

- Reduction in cost of production
- Reduced incidence of weeds
- Environmental benefits
- Crop diversification

3. KNOWLEDGE MANAGEMENT THROUGH DIGITAL TECHNOLOGIES

What is knowledge management?

- It is a process of leveraging collective knowledge in a particular domain or institution or organization.
- It traditionally includes four processes
 1. **Knowledge Creation** : bringing together new knowledge, useful to solve problems or making decisions
 2. **Knowledge storage and retrieval** : process of storing the knowledge for the later access
 3. **Knowledge transfer** :To deliver the new knowledge to the target group from time to time
 4. **Knowledge application**: gain benefit from the knowledge by solving problems with the help of that knowledge acquired by the community

Do the digital technologies revolutionizing the knowledge management?



- Traditional Knowledge Management such as Class room teaching and distance mode programs resulted in Knowledge push but had less interactivity.
- These systems were process centric rather than people centric.
- However due to the affordability of internet and mobile phones in rural India, there is a paradigm shift in reaching out information and knowledge to rural communities.

What are the various ways by which digital technologies are revolutionizing knowledge management?

Web Portal

- It is a powerful knowledge management tool.
- It is specially designed single access points to information collected from diverse sources.
- Example: Vikaspedia, Indian Panchayat Knowledge portal

Social Media

- It is a cost effective tool for knowledge sharing.
- Rural development process demands continuous interaction among multiple stakeholders.
- Social media provides a platform for such interactions.

Smart Phones

- It is a dynamic power house of Knowledge.
- Mobile services are handy and facilitate content creation.
- It also plays a major role in storing, accessing and sharing the information anytime, anywhere.
- Other than voice calls smart phone supports useful services like messaging, internet based data services and Apps.
- These services make the community connected and knowledge empowered.

Expert System

- An expert system is basically a software application
- It is a virtual expert tool providing solutions for common problems.
- It attempts reproduce the performance of an expert in a particular domain.
- For instance 'Plantix' is a mobile based plant disease diagnostic tool.

E-Learning

- It is a solution for large scale capacity building and plays a major part in Knowledge sharing and application.
- It includes the online courses, remote classrooms, video conferencing, etc.
- Popular Massive Online Open Courses (MOOCs) such as SWAYAM, Course era. Khan Academy are latest trends in Knowledge dissemination.

Community Radio



- It is a broadcasting system established by the efforts of a specific community, operated by them for the purpose of the community's welfare.
- Rural Community radio stations focus on creating awareness and providing knowledge on community development problems.

4. DIGITAL HEALTH SERVICES:KEY INITIATIVES

m-Sakshi

- It is a mobile app.
- It is an all-in-one job aid and electronic medical record system.
- It helps the health workers in providing high quality health care to the families in the remotest part of the country.
- It replaces the paper based tools and help health workers get access to latest training and Information.
- Through this app health workers
 1. Can update their skills
 2. Stay in touch with their supervisors
 3. Track and report important data about health issues in their communities

Mobile Academy

- It is a free audio training course designed to expand knowledge base of Accredited Social Health Activists (ASHA).

- It also helps in improving their communication skills.
- It is cost effective, efficient and reduces the need to travel to update their skills.
- It has been launched in Jharkhand, MP, Rajasthan and Utrakhand.

Kilkari app

- It delivers free, weekly, time appropriate 72 audio message about pregnancy, child birth and child care.
- It delivers directly to the families' mobile phones from second trimester of pregnancy.
- It has been launched in Jharkhand, Odisha, Uttra Pradesh, Utrakhand and High Priority Districts of Madhya Pradesh and Rajasthan in first phase.

ANM On Line (ANMOL)

- Auxiliary Nurse Midwife (ANM) On Line aims to improve the quality, timeliness and effectiveness of the delivery of service.
- Especially to ensure better healthcare for women and children.
- The application aims at bringing awareness about initiatives on health, maintenance of good hygiene, basic health care and precautions.

M-cessation

- This program aims at reaching out to those willing to quit tobacco use.



- It supports them towards successful quitting through text messages sent via mobile phones.

e-Hospital

- It is an online registration services framework portal.
- It is the portal where people can avail online services such as
 1. registration and appointment
 2. pay fees,
 3. view diagnostics reports
 4. check for the availability of blood in government hospitals
- It was introduced by Government of India to connect and empower people.

Mera Aspataal

- It is an initiative by Ministry of Health and family welfare.
- It is to capture the patient feedback for the services received at the hospital through user friendly multiple channels.
- The collected feedback is compiled, analyzed and visualized to improve the delivery and quality of services.

5. DIGITAL TECHNOLOGY IN FINANCIAL INCLUSION

What is Financial Inclusion?

- Financial Inclusion is the way the Governments strive to take the common man into the formal channel of economy.

- It is to ensure that everyone benefits from the economic growth.
- The people are added in the mainstream economy and encouraged to save, safely invest in various financial products and to borrow from the formal channel when they need to borrow.
- Financial inclusion includes banking services and other financial services such as insurance, equity products and pension products.

How the digital technologies are useful in achieving Financial Inclusion?

Steps taken by Government

- The most crucial of the several steps taken by the government is JAM Trinity- Jan Dhan, Aadhar and Mobile number.
- A National Mission on Financial Inclusion named as Pradhan Mantri Jan Dhan Yojana (PMJDY) was launched to increase the penetration of the banking services.
- Effective use of technology is inevitable to achieve deep penetration of banking services.
- The Banking ecosystem operating on core banking mode, and ability of National Payments Corporation of India to scale up issue of debit cards has enabled effective implementation of PMJDY.

Steps taken by Reserve Bank of India



- RBI has allowed nonbank entities to open ATMs called White label ATMs to expand the network of the ATMs.
- RBI started Business Correspondent Model in 2006.
- Business Correspondents are representatives appointed by the banks to act as their agents who provide the services in the remote locations, where the bank may not have its presence.
- The two major technological components involved in the business correspondent model are
 1. Hand held offline device through which financial services are offered
 2. Smart card to the customers which records each transaction.
- Further Rupay Kissan Cards by NABARD is propelling the cashless transaction among the farming community.
- Payment Banks are new model of banking to provide the services to the underserved and un-served community of the country.
- Finally, digital inclusion is the foundation of the financial inclusion.
- The primary focus of the educational technology in education remains the learning.
- The central concern is to improve the quality of education and ensure joy of learning.
- The educational technology should also aim to make learning constructive, critical, inclusive and collaborative.

What are the digital initiatives undertaken at the national level?

e-Pathshala

- Government of India has launched the e-Pathashala portal and app in 2015.
- It is a joint Initiative of Ministry of Human Resources and NCERT.
- It has all the textbooks of NCERT in digital form.

NROER

- **National Repository of Open Educational Resources** is a store house of all types of e contents arranged thematically and mapped according to the NCERT curriculum.

SWAYAM PRABHA Initiative

- IT is an initiative to telecast high-quality educational programs on a bouquet of channels on 24 x 7 basis using GSAT 15 satellite.

6. USE OF ICTs IN EDUCATION

What is the primary focus of Information and Communication Technology in Education?



- The contents are provided by NPTEL, IITs, UGC, NCERT, IGNOU.

SWAYAM

- The Study Webs of Active-Learning for Young Aspiring Minds (SWAYAM) is a digital platform which hosts several courses by te bet teachers of universities/colleges/schools.
- It is a massive open platform which provides courses free of cost.
- It provides Video Lectures, self assessment test and oline discussion forums.

ShaGun portal (Shala- School and Gunvatta – quality)

- It was launched by the Ministry of Human Resources Development (HRD) to monitor the progress of Sarva Shiksha Abhiyan (SSA).
- It is planned to make the portal in to a repository of best practices, innovations, success stories and resources available in the states/union territories.
- Similarly Shala Darpan is an e-government platform for all Kendriya Vidyalaya (KV) schools to improve quality of Learning, efficiency, governance and service delivery.