Mahatma Gandhi National Rural Employment Guarantee Scheme - Leadership through Technology and Effective implementation in Andhra Pradesh, India

1. **Dasari Yedu kondalu,** Doctoral Research Scholar, Dept., of Sociology and Social work, Acharya Nagarjuna University, Nagarjuna Nagar, Guntur, Andhra Pradesh, India.
2. **Prof. M. Trimurthi Rao**, Professor, Department of Sociology and Social Work, Acharya Nagarjuna University, Nagarjuna Nagar, Guntur, Andhra Pradesh, India.

Abstract

Due to the emergence of new technologies and people's eagerness to use them in daily life, the globe is on the point of upending indigenous knowledge and ancient social practises. In any job or business, using technology helps people get results quickly and distribute labour among them more evenly. To prevent gaps in the implementation of the schemes and strengthen the schemes with more transparency, the Indian government has been implementing digital technology in a number of welfare schemes, including MGNREGS, NFSA (National Food Security Act), Social Security Pensions, the Mid-day-Meal Programme, etc.

The current paper discusses about the advantage of digital technology in implementation of the MGNREGA scheme in Andhra Pradesh state and how the technology is helping to monitor the program implementation and effectively utilizing the human resources from field level to state and also the impact of technology to enhancing leadership skills and effective monitoring for better results of the scheme.

Key words: Technology, Leadership and Effective Monitoring

Mahatma Gandhi National Rural Employment Guarantee Scheme - Leadership through Technology and Effective implementation in Andhra Pradesh, India

Introduction:

The world is almost reached the verge of disrupted the indigenous knowledge and tradition practices in the society due to emerging new technologies and human enthuses to experience the new technology in daily life. The usage of Technology helps the human to get immediate results and minimise the work load among the human resources in any work or business. In India, under the concept of Digital India, the

Government of India has been adopted digital technology in implementation of several welfare schemes such as MGNREGS, NFSA (National Food Security Act), Social Security Pensions, Mid-day-Meal programme etc to avoid gaps in implementation of the schemes and strengthen the schemes with more transparency. This paper discusses about the advantage of digital technology in implementation of the MGNREGA scheme in Andhra Pradesh state and how the technology is helping to monitoring the human resources from field level to state and also the impact of technology to enhancing leadership skills and effective monitoring for better results of the scheme.

The MGNREGA is a centrally sponsored scheme which aims at enhancing the livelihood security of people in rural areas by guaranteeing hundred days of wage-employment in a financial year to a rural household whose adult members volunteer to do unskilled manual work. The MGNREGA scheme is being implementing in Andhra Pradesh effectively by ICT interventions. Under the provisions of the Act, State Governments are expected to provide unskilled, manual work within 15 days of a person making an application, within a radius of 5 kms from the applicant's residence. Failing this, the state government has to pay an unemployment allowance to the job seekers. Workers are entitled to a statutory minimum wage for their labour, to be paid within 15 days after the work is done. Men and women are to be paid equal wages. Under MGNREGA, there are strong provisions for transparency and accountability at all levels: for instance, wages are to be paid in the presence of the community on pre-specified dates, all relevant documents are to be made available for public scrutiny and regular social audit of all works has to be conducted.

In order to ensure transparency and accountability in every initiative of MGNREGA, Andhra Pradesh state has consciously and systematically placed various systems viz., Social Audit, Quality Control, Vigilance cell, ICT initiatives (Mobile Managements Systems (MMS), Electronic Fund Management Systems (eFMS, DBT etc) most of initiatives since inception and a few during course of implementation of the Scheme.

Objectives:

1. To discuss the importance of IT interventions in implementation of the MGNREGA scheme in Andhra Pradesh state
2. To reveal the impact of technology on enhancing leadership skills and effective monitoring for better results of the scheme.

Methodology:

The present study is a part of Ph.D work on "A Study on the Impact of Mahatma Gandhi National Rural Employment Gandhi Scheme on Marginalized Groups in Guntur District of Andhra Pradesh" The paper is mainly based on secondary data.

Review of Literature:

Ashok Pankaj and Rukmini Tanka (2010) examined the effects of the MGNREGA on rural women empowerment in Bihar, Jharkhand, Rajasthan and Himachal Pradesh. They find that women workers have gained from the scheme primarily because of paid employment opportunity and benefits have been realized through income- consumption effects, house hold effects and the enhancement of choice and capability. Krishna Kumar (1996) paper was aimed at measuring not only the incidence of poverty but also the effectiveness of poverty alleviation programmes by choosing a better measure of poverty that is suited for such a purpose.

Meera Reddy (1990) examines and highlights the effect of TRYSEM on rural employment and development. The conclusions of the study are: i. TRYSEM is able to make only a limited dent on the problems of rural unemployment and poverty. ii. The author suggests that the strategies of self- employment and wage employment programme are two components of the poverty alleviation strategy in rural areas.

Kaustav Benerjee and Partha Saha (2010) their study enquires about the working of NREGA in backward areas and Maoists activities in such areas in terms of developmental woes of the Indian state.

Pradeep Baisakh (2008) in his article titled " In Orissa NREGA is still a ray of hope" reported that an old woman named Uma Kahanr, Tarbha village of Boud District, Orissa who is engaged in NREGA scheme revealed that she got Rs.1850 for working about 20 to 25 days. From the earnings, she was able to repay some debts and met some consumption expenditure. Because of the regular work, she did not need to collect and sell wood every day – a practice that was her major source of livelihood in the past.

ICT Interventions in Implementation of MGNREGA:

An ICT intervention in the implementation of MGNREGA is important from the following perspective:

(a) ICT will ensure transparency and help in information dissemination
(b) An ICT tool is required because the size of the programme is very large, not only from the geographical and financial perspective but from the perspective of the size of the target group of beneficiaries as well.
(c) ICT will facilitate online monitoring and evaluation of the programme. The timely feedback will help in timely corrective actions.
(d) An ICT tool will help in social audits whereby the local bodies and citizens may actually audit the programme at their end.

ICT will play a definite role in every phase of the implementation of the MGNREGA. For ensuing 'Transparency and Accountability' in the implementation of MGNREGS in Andhra Pradesh, State government has taken up the below indicated IT initiatives:

i. Transaction based software to provide end-to-end solutions.
ii. Electronic Muster & Measurement System (eMMS)
iii. Geo-tagging of all works where in public money involved in execution.
iv. Financial transparency through Electronic Fund Management system (eFMS)
v. Payments to wage seekers through Direct Benefit Transfer (DBT) using Biometrics Authentication and IRIS Authentication.
vi. Aadhaar Payment Bridge (APB) mode of Payments.

1. Transaction based software to provide end-to-end solutions:

Andhra Pradesh is the first state to introduce comprehensive IT software that provides end-to-end IT solution with transaction-based software in place since inception under MGNREGS. Various modules for execution of NREGS works, administration, accounts, etc., are prepared based on different aspects of the programme implementation.

Every work planned and executed under MGNREGS is done through software by way of generation of the estimates, online sanctions, issue of work commencements orders, e-muster entries, direct payments

to beneficiaries through eFMS (Electronic Fund Management System) etc. Web based monitoring reports are placed in the official website of http://www.nrega.ap.gov.in/ capturing every work and transactions on real time basis which are kept available for public access.

2. Electronic Muster & Measurement System (eMMS):

The objective is to achieve complete transparency in implementation of MGNREGS by obtaining LIVE data from the Worksite to the Website on a daily basis. The mobile technology is customised and deployed for the MGNREGS field functionaries through different mobile applications like e-Muster, e-Measurement, e-muster verification and e-check measurement. eMMS is designed to arrest distortions in the programme like Muster Fudging; Delays in Payments; Binami Wage seekers; Fake Measurements and Work Duplication. eMMS is being implemented in all the districts (www.mgnrega.ap.gov.in) of Andhra Pradesh state.
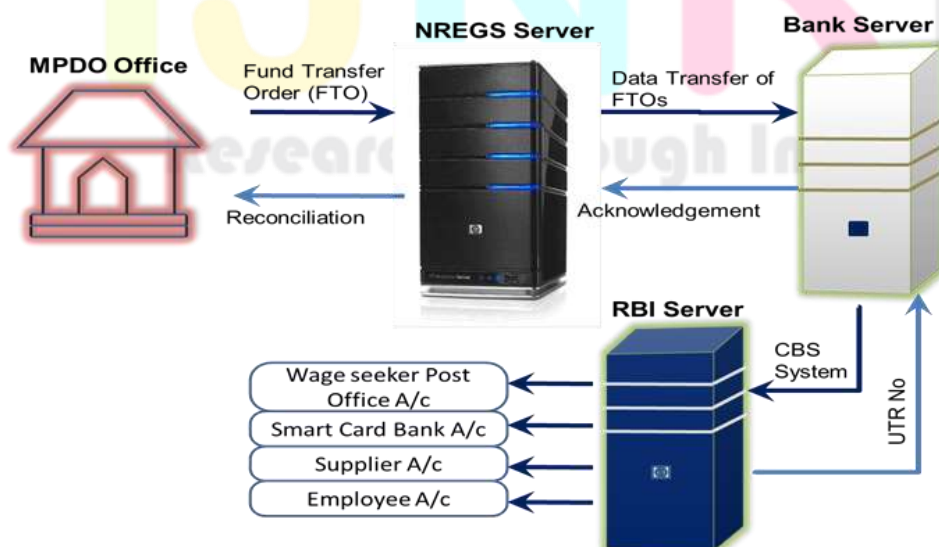
3. Geo-tagging of all works where in public money involved in execution:

Under MGNREGA while at planning stage it is made mandatory to get GPS coordinates (Latitudes & Longitudes) to be taken to a particular work for the generation of estimate and capture images with GPRS tag for every payment and also date and time of visit to the work location. All such works are put in public domain for enhanced transparency. For this all field functionaries are provided with android based mobile which supports GPRS and GPS. Demand capture/ allocation of works/daily attendance to work sites and geo tagging are done through these mobiles and all the functionaries are trained to utilize this technology.

4. Financial transparency through Electronic Fund Management System (eFMS):

eFMS has been established with the objective of implementing an efficient fund transfer system through online money transfers. All the MCCs and DCCs are networked to the central server and through that to a central fund in which all the MGNREGA funds are lodged. eFMS enables electronic transfer of money to a disbursing account (post office/smart card etc) where there is a requirement and allows optimum utilisation of funds. eFMS avoids unnecessary parking of funds at Mandal level. The Mandal level staff is liberated from the maintenance of cheque books and accounts. All payments are made to the individual Bank/Post office accounts directly by the disbursing authority, it has reduced delay in payments.

The below chart provides the mechanism of the financial transparency through Electronic Fund management System in respect of MGNREGA programme in Andhra Pradesh.

5. Payments to wage seekers through Direct Benefit Transfer (DBT) using Biometric Authentication:

DBT Project in NREGS-AP was started as SMART CARD PROJECT in 2007 by Rural Development Department of Government of Andhra Pradesh. It is a pioneering initiative in Financial Inclusion and the only one of its kind and scale in India. It is arguably the most successful bio-metric payment project in India prior to introduction of Aadhaar.

Towards the end of 2014, all the Gram Panchayats have been converted into the postal payments with **Aadhaar Enabled Payment System (AEPS)** authentication mode. The project envisages MoUs with Department of Post and AP Online for payment of wages under the Mahatma Gandhi National Rural Employment Scheme (MGNREGS) in all villages of the State of Andhra Pradesh. Main objective of the project is to disburse wages earned in NREGS to the wage seekers within the village and within the time limits as envisaged in NREG Act, 2005. The advantages of DBT Project are reportedly to be using handheld PoS machines for delivery of services at doorstep of beneficiaries, capturing the real time transactions into NREGS database, Automated Delay Compensation System, Elimination of Ghost beneficiaries, Direct Benefit Transfer of making payments using **Aadhaar Enabled Payment System** and using services of Department of Post with their vast network along the length and breadth of the Country.

As per the data, **83 lakh MGNREGA beneficiaries** have been covered. Transparent MIS System is setup to track the flow of cash till the last mile. Wage amount to the tune of Rs.2775 Cr was disbursed through Aadhaar/Local Biometric Authentication. (AEPS: 95.15%, Local Biometric: 4.85%). In case of Biometric Authentication failures 2, 26,744 IRIS Authentication transactions were made in disbursement of wages across the state. 540 villages were connected online to DBT server by using whip antennas.

Biometric payments / Iris based payments:

The Government of Andhra Pradesh has provided the IRIS devices to all the districts for making of wage payments in the case of Biometric authentication failures.

6. Aadhaar Paymnet Bridge (APB) mode:

The Government of Andhra Pradesh has started an initiative to route the wage payments through Aadhaar Payment Bridge (APB) mode in which the wage amount will be credited directly into the individual wage seekers account through National Payment Corporation of India (NPCI). So far 11,352 GPs out of 12,945 GPs have been converted to wage payments through APB mode in the 13 districts of AP.

Results & Impact of IT Interventions in Implementation of MGNREGS in Andhra Pradesh:

The Government of Andhra Pradesh has bagged national awards twice for the years 2015-16 & 2016-17 in Transparency and Accountability in implementation of MGNREGA. Through IT initiations, strong monitoring mechanisms have established and strengthen the scheme to reach the beneficiaries. The impact of IT initiatives is:

1. All field functionaries are provided with Android Based Mobile (Nearly 15,000 mobiles) which supports GPRS and GPS and every work planned and executed are geo tagged and placed in the public domain.
2. Through transaction-based software, real time data of works taken up & their status is available in the public domain any time.

3. eMMS is designed to arrest distortions in the programme like Muster Fudging; Delays in Payments; Binami Wage seekers; Fake Measurements and Work Duplication.
4. 99.98 of Pay orders were generated within 3 days.
5. eFMS successfully enabled direct electronic transfer of Rs.2432 crores to the beneficiary account during 2015-16 FY allowing optimum utilization of funds.
6. Wage amount to the tune of Rs.2639Cr was disbursed through Aadhaar/Local Biometric authentication. (AEPS: 95%, Local Biometric:05%). In case of Biometric Authentication failures 1,46,468 IRIS Authentication transactions were made in disbursement of wages across the state. 540 villages were connected online to DBT server by using whip antennas.
7. As part of grievance redressal through call centre, as on today out of 6823 complaints registered, 6671 complaints were redressed and 152 are pending.

The following table shows Year wise Expenditure of Andhra Pradesh

Financial Year	Total Expenditure (Rs in Lakhs)	Financial Year	Total Expenditure (Rs in Lakhs)
2006-07	25,701.21	2014-15	2,96,744.30
2007-08	97,599.94	2015-16	4,39,905.93
2008-09	1,38,753.18	2016-17	5,70,527.96
2009-10	2,23,386.53	2017-18	6,13,356.64
2010-11	3,00,326.02	2018-19	9,18,802.86
2011-12	2,76,583.71	2019-20	6,35,589.06
2012-13	3,14,044.04	2020-21	9,97,558.91
2013-14	3,07,181.09	2021-22	7,42,984.80

Source: www.mgnrega.ap.gov.in

Conclusions:

The MGNREGS programme is one of the biggest and most successful Rural development programme in the world implementing by the Govt. of India at the national level with the budget allocation of Rs.38, 500 crores for the year 2016-17. For a successful implementation of any people friendly welfare programme, the implementation agency/ government requires innovative approach with new initiatives through technology. In this arena, the efforts and initiatives of the Govt. of A.P through ICT mechanism is really appreciable and commendable in respect of the high success rate of MGNREGS in the state of A.P. The Govt. of Andhra Pradesh is pioneered many IT initiatives such as Bio-metric and Irish authenticated wage disbursements, Geo-tagging of assets, Electronic muster management system are placed vital role to keep the objective of the scheme alive and role model to the entire nation for reducing the poverty in rural India.

References:

1. Ashok Pankaj, Rukmini Tankha., ―Empowerment effects of NREGS on Women Workers: A study in four states ―, Economic & Political WeeklyVol XLV No 30. , July 24, 2010.

2. Kaustav Banerjee and Partha Saha (2010) The NREGA, the Maoists and the Developmental Woes of the Indian State, Vol. 45, Issue No. 28, 10 Jul, 2010, ISSN (Online) - 2349-8846

3. Meera Reddy, V, ―TRYSEM Programme: A Case Study in Kurnool Samithi of Andhra Pradesh, Journal of Rural Development, NIRD, Hyderabad, Vol.9 (2), 1990, PP. 435-443

4. MGNREG Act 2005

5. MoRD (2007), Rural Employment Guarantee Act 2005 (NREGA), Report of the second year April, 2006-March.

6. Pradeep Baisakh, In Orissa NREGA is still a ray of hope, www.indiatogether.org, 2nd Feb, 2008.

7. Rural Employment Generation Programme by KVIC -http://www.fibre2fashion.com http://planningcommission.nic.in

8. www.mgnrega.ap.gov.in