



RESEARCH ARTICLE

STANDARD OPERATING PROCEDURE FOR MONITORING OF MAHATMA GANDHI NREGS WORKS USING DRONE TECHNOLOGY

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ABSTRACT

Mahatma Gandhi National Rural Employment Guarantee Act (MNREGA) is one of the world's largest employment guarantee programs launched in 2005 by the Ministry of Rural Development. This Act was implemented by the Government of India to improve the purchasing power of rural people. MNREGA is considered as a magic wand to reduce poverty and unemployment in the villages of the country by creating demand for labour force in the rural areas of our country. After independence, the rate of poverty and unemployment in the country has increased at an unprecedented rate. Our country is already facing problems like illiteracy, hungry people, malnutrition, poverty, unemployment. Keeping all these problems in mind, the Government of India implemented the National rural Employment Guarantee Act in 2005. This is the world's largest poverty alleviation program. Its main objective was to provide more skilled or semi skill work to people living below the poverty line in the rural area of India. It is a commendable effort to reduce the gap between the economically prosperous people and the people living below the poverty line in our country. Due to this, a total of 11.37 crore families got employment across the country in 2022-23.

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INTRODUCTION

The Mahatma Gandhi NREGA Act provides a statutory guarantee of hundred days of employment in every financial year to every adult member at any rural household in the country about the age of 18 years for skill or semi-skilled work in public works of the statutory minimum wages.

The main aspects of the scheme was:

- Category A: Public works relating to Natural Resource Management.
- Category B: (Community assets or Individual assets) for vulnerable sections.
- Category C: Common Infrastructure [including for NRLM] compliant Self Help Groups, and
- Category D: Rural Infrastructure.

A list of tasks has been prepared for the four categories A, B, C, and D above. A large number of works are being taken up and also being successfully completed every year to meet the objectives of the Act.

Objectives of the studies

- To understand the conceptual framework of MNREGA.
- To study and analyse the Drone Technology.

METHODOLOGY

This paper is based on secondary data. Many Government publications have provided data to support my paper. Information retrieved from internet have been used.

Monitoring in MNREGA- A comprehensive system of monitoring and review mechanism are in place under Mahatma Gandhi NREGA.

- Monitoring by Programme Officer, District Programme Coordinator, DRDA
- Monitoring by DISHA
- GeoMNREGA: Geotagging assets in three stages (Before, During & After)
- Social Audit, Ombudsperson(Lokpal)
- Internal Audit
- Monitoring through Area Officers App

- Common Review Mission
- **National level Monitors:** - regular as well as special monitoring
- Grievance Redressal Mechanisms, CPGRAMS
- **Janmnrega App:** A citizen centric feedback -based monitoring. Also, monitoring through drone technology is now in place.

Drone Technology: Unmanned Aircraft System (UAS) commonly known as drone. Drone technology (Drone) can be used for different activities across different sectors such as a tool for Agriculture related activities like (spray of pesticides), transportation, surveillance and monitoring etc. To prevent the fraud going on the various parts of the country regarding the works being drawn under MNREGA, for inspection of the ongoing works, for testing the works already done, for investigating the matter on receptive of complaint, the rural development ministry has an emphasized on the use of drone method.

Use of Drone: Use of drone- In this century of high technological development, dronetechnology under unmanned aircraft method is being used successfully in diverse areas of human life. While using drones for inspiration under MNREGA, it is mandatory to follow the provisions of the Drone Rules, 2021. Some important provisions of the Drone Rules, 2021 are as follows

- Everyday drones, except those used in research, development and testing, are required to be registered and must have a unique identification number.
- It is mandatory to obtain a certificate of eligibility for drawn flying from the quality council of India or the institution authorised by the central government.
- Drones have a self-generated UNI number on the digital sky platform.
- The interactive air space map available on the Digital Sky Platform is mandatory for flying drones, with red, green and yellow zones designed within it.

Use of Drone under MNREGA-The ministry of rural development has formulated a new policy for the use of drone to monitor the works under the MNREGA act. Use of drones

This will be done to monitor the ongoing works under MNREGA, inspect the completed works and evaluate their impact.

- It can be used by the Ombudsperson appointed in each district to resolve the complaints made by the people.
- To leverage the use of drones in circular along with human operational processes, it is proposed to use this technology for quality monitoring and inspection of works and assets under MNREGA.
- Under MNREGA, drones will be used to monitor ongoing works by capturing georeferenced images before commencement of work, during execution and after completion of work.
- Drones will also be used to collect time series data for impact assessment of natural resources management, water and agriculture related works under MNREGA.
- Special inspection will also be carried out using drawn to investigate complaints against the property constructed or work carried out. This will help the Lokpal appointed in

each district to receive complaints. The ministry said that Lokpal can use drones to perform tasks.

Use of Drone by Lokpal-A ministry has been setup as a part of system to deal. With all the complaints and gravedances about whether the MNREGA act is successful. For this the Lokpal played an important role with grate responsibility and clarity. In many cases social audits was used to deal with some cases by Social Audit Unit. A Lokpal would be responsible to take the cases of Sou Motu and pass awards when they are disposed off within 30 days from the date of compliant. To ensure further efficiency the ministry has decided that Lokpal can use Drone technology to verify the actions, which will help the Lokpal in passing award within a time boundary. The state government should give this facility so that the complaint can be resolved within the particular time. On the request of Lokpal. The state government should provide the related items for live stream inspection of the work place at the headquarters. At the district level the expenses of the drone will be recorded under MNREGA at district level. Drone will be provided to the Lokpal within 15 days and if not due to any technical region, he will have to visit the work site, monitor the work as per requirement.

Funds- Purchasing of drone is not allowed under MNREGA. The expenditure on surveillance using drone can be met through administrative contingency under MNREGA. Agencies are appointed to provide drone services and the appointment of these agencies may be finalized as per the General Financial rules 2017 or any other financial regulations to be followed by the state. The agency appointed for monitoring will have to fulfil all the criteria of the Drone Rules 2021 and the amendments made to the Drone rules from time to time.

CONCLUSION

The integration of drone technology into MGNREGA monitoring can revolutionize rural project management by improving transparency, efficiency, and accountability. A well-defined SOP ensures standardized and effective use of this technology, addressing challenges and aligning with regulatory frameworks. By adopting this approach, the MNREGA programme can achieve enhanced governance and foster trust among beneficiaries.

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