

# A FRAMEWORK FOR QUANTIFYING THE CLIMATE CO-BENEFITS OF MGNREGS WORKS



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## Introduction

The Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) is a national poverty alleviation programme that provides 100 days of guaranteed wage employment to rural households whose adult members demand unskilled manual work. The scheme includes more than 260 activities (called ‘works’) that are categorised into natural resource management (NRM)-based and non-NRM-based rural development works.

Almost 60% of the MGNREGS budget (amounting to INR 3,60,000 million) is spent on NRM works. While job creation is the targeted outcome of the scheme, the NRM works and assets constructed under it—by virtue of design—have significant potential to mitigate carbon emissions and help rural households adapt to current and future climate hazards, while increasing their climate resilience. These constitute the climate co-benefits that accrue from MGNREGS works. However, at present, the climate co-benefits are neither quantified, nor monitored or reported.

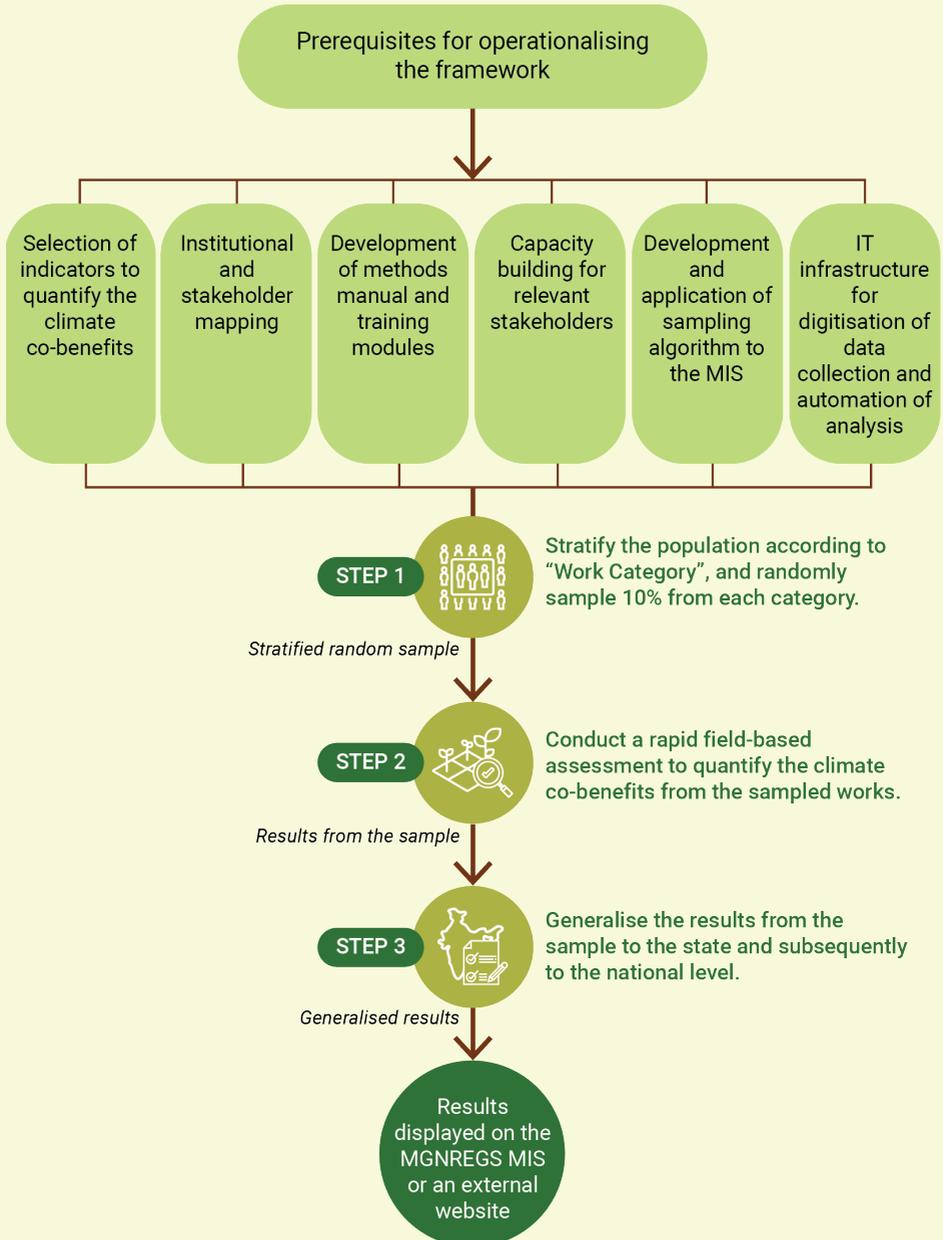
The Center for Study of Science, Technology and Policy (CSTEP) conducted a rapid field-based assessment to quantify the climate co-benefits arising from *Usharmukti*, a river rejuvenation programme implemented under MGNREGS in West Bengal. The programme is implemented across six districts in the state and comprises micro-watershed-management works, such as construction of water-harvesting structures and irrigation canals, and horticulture and social forestry plantation works. For the study, nine different types of works implemented in four of these districts—amounting to a total of 541 works—were assessed through primary surveys and field measurements to quantify the climate co-benefits arising from them.

While the study quantified the climate co-benefits of works implemented through MGNREGS under *Usharmukti*, the insights from the surveys and field assessments helped to formulate a three-step framework for quantifying, monitoring, and reporting the climate co-benefits from MGNREGS works.

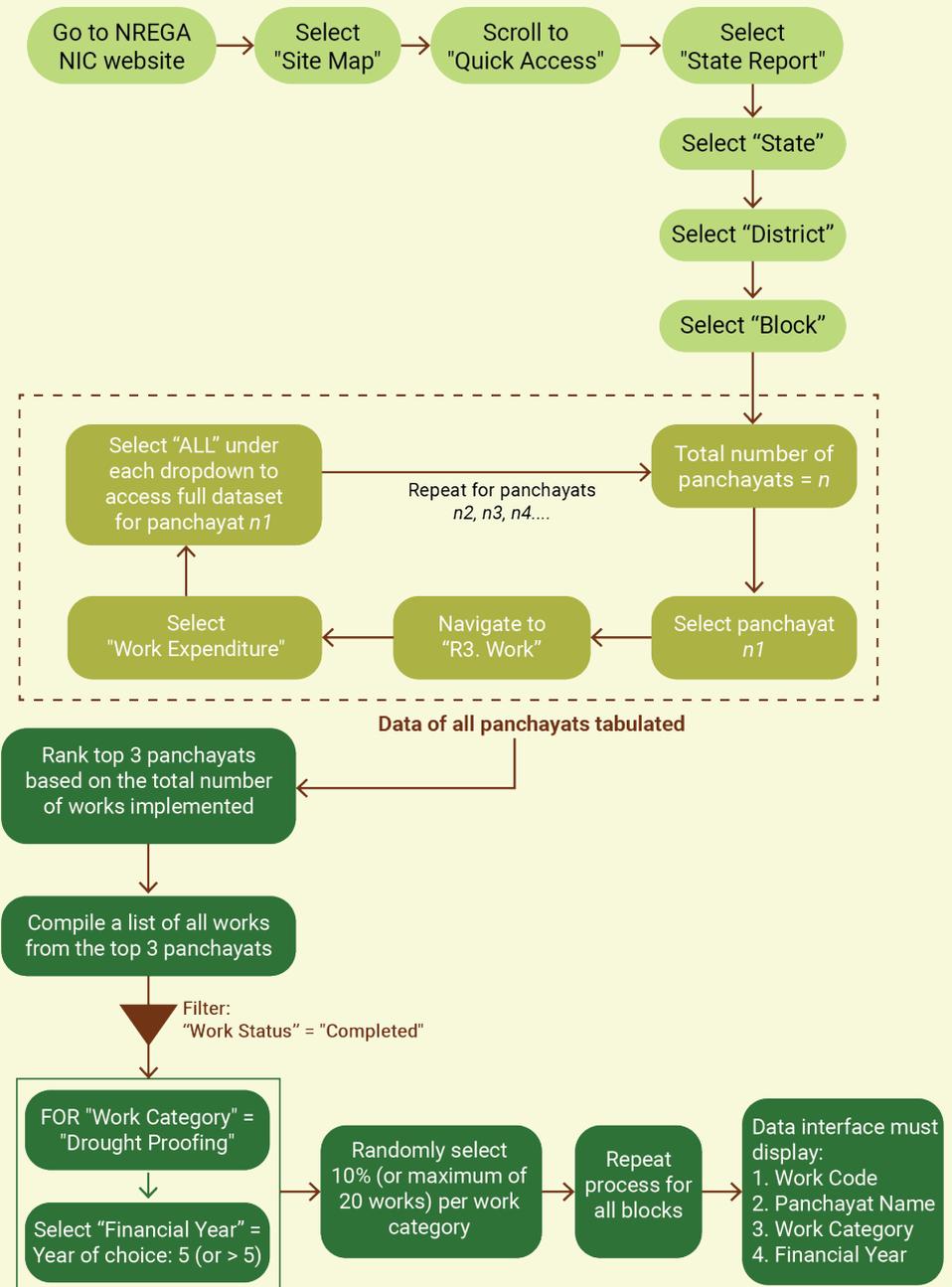


# Key insights

Our quantification framework embodies the crucial study insights.



# MGNREGA Sampling Algorithm





## Recommendations

This section lists down the recommendations that would facilitate the implementation of the framework.



Prepare a work-specific list outlining the reportable Sustainable Development Goals (SDGs) and Nationally Determined Contributions (NDCs) indicators for all the 260+ MGNREGS works.

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Prepare a comprehensive list of institutions and stakeholders that can undertake such assessments.

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Prepare a methods manual for conducting rapid field-based assessments to help institutions and stakeholders in quantifying the climate co-benefits from MGNREGS works.

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Develop suitable training materials and integrate them into the existing MGNREGS capacity-building programmes so that the quantification and reporting of climate co-benefits can be done seamlessly.

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Automate the sampling algorithm to extract data from the MGNREGS MIS and provide assessors with a sampled list of MGNREGS works and beneficiaries.

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Digitise and automate data collection and analysis using mobile surveys or OMR formats to reduce the burden on institutions conducting the assessments.

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If integrating the results (climate co-benefits) into the MGNREGS MIS is not possible, the framework can be piloted in a few states by creating an external database.

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## Benefits

- Provides an opportunity to improve implementation of the scheme, based on the feedback from beneficiary surveys and field assessments.
- Generates supplementary information for social audits performed under MGNREGS.
- Aids reporting on the relevant SDG targets, indicators, and goals, and the forestry-related NDCs and Adaptation Communications (from 2024).
- Enables reporting of carbon sequestration benefits of plantation-related MGNREGS works that can become an input for the National Communications and the Biennial Update Reports of the Government of India submitted to the United Nations Framework Convention on Climate Change.
- Can be adopted by other development programmes implementing land- and water-based activities once its utility is demonstrated via MGNREGS.



## Barriers

- Buy-in from various institutions and stakeholders involved in the implementation of MGNREGS might be difficult to come by.
- There is limited institutional capacity to carry out monitoring and reporting of climate co-benefits.
- Operationalisation of the framework and its integration into the scheme's MIS is complex, requiring approval from the Ministry of Rural Development.





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