

Rapid Assessment of Natural Resource Management Component Under MGNREGA and its impact on Sustainable Livelihoods

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Study carried out for Ministry of Rural Development, Government of India

Summary of Key Findings

Introduction

The service led growth process witnessed in India for several decades has meant that the pattern of income generation has changed considerably away from agriculture in favor of services sector, yet agriculture and allied sectors continue to employ close to half of the labour force. While open unemployment rate is not high, underemployment has prevailed extensively. In order to spread the benefits of growth process widely, several measures aimed at generation of employment opportunities for the rural poor and vulnerable groups have been adopted by the Government. Named differently under different regimes, these programmes have primarily aimed at providing the rural poor with wage employment opportunity through community works. These programmes went through a paradigm shift in early 2006 with the National Rural Employment Guarantee Act (NREGA or MDNREGA after it was named after Mahatma Gandhi) which had several legally binding provisions including a guarantee up to 100 days of work a year on demand to every rural household willing to do unskilled manual work.

Covering 685 districts of the country, the programme generated 235.76 crore person days of employment for 7.67 crore individuals in FY 2016-17. More recently, Natural Resource Management (NRM) has been an important component of MGNREGA to promote sustainable livelihoods for the poor. About 60 percent expenditure has been allotted for the creation of natural resource assets (both community and individual assets) in FY 2016-17. While several evaluation studies have been conducted on issues such as extent of job demand, wage income generation, social protection and safety net aspects of NREGA, impact of the reorientation of the recent focus towards the NRM component has not yet received adequate attention from the research community.

Objective

This study is a rapid assessment of the performance of the NRM component of MGNREGA in 30 districts spread over different agro-climatic zones in 21 states during 2015-16 and 2016-17. More specifically, it aims at understanding the following:

- The process of planning involved for NRM activities and implementation
- Impact of assets created in the programme on household welfare by examining income, crop productivity, and non-tangible benefits, if any. In particular, the study tries to understand the role of assets created for individual households on their livelihood.

- We also question the household on extent of migration and changes, if any, after the programme was undertaken.
- Assess household perception on the quality of individual and community assets created in the programme and their maintenance
- Whether convergence is taking place among NREGA and other major government interventions in rural areas.

Survey Coverage and Tools

The survey has been conducted in 30 districts spread over 21 states and 14 agro-climatic zones. A total of 1200 (40 from each district) beneficiary households of NREGA assets have been covered through a structured questionnaire. The selection of districts was based on NRM expenditure per NREGA worker on natural resource management component. The districts having per capita expenditure close to the average per capita expenditure in their respective agro-climatic zone were selected. This primary criterion was also supplemented by extent of urbanization and cropping intensity. Districts having high rate of urbanization and high cropping intensity were not selected for the study since pilot survey indicated low demand for NRM-NREGA works in such districts. In case of one agro-climatic region spreading over two or more major states, we have tried to select the districts from each state. Table 1 provides the list of selected districts.

We set a target of selecting 4 blocks in each of the selected districts having the highest expenditure on individual asset creation and 1 gram panchayat (GP) from each block considering factors such as number of NRM assets, accessibility, terrain, and weather condition. But, two or three blocks were selected in a few cases because individual NRM component was nearly absent in other blocks. Finally, 115 GPs have been covered.

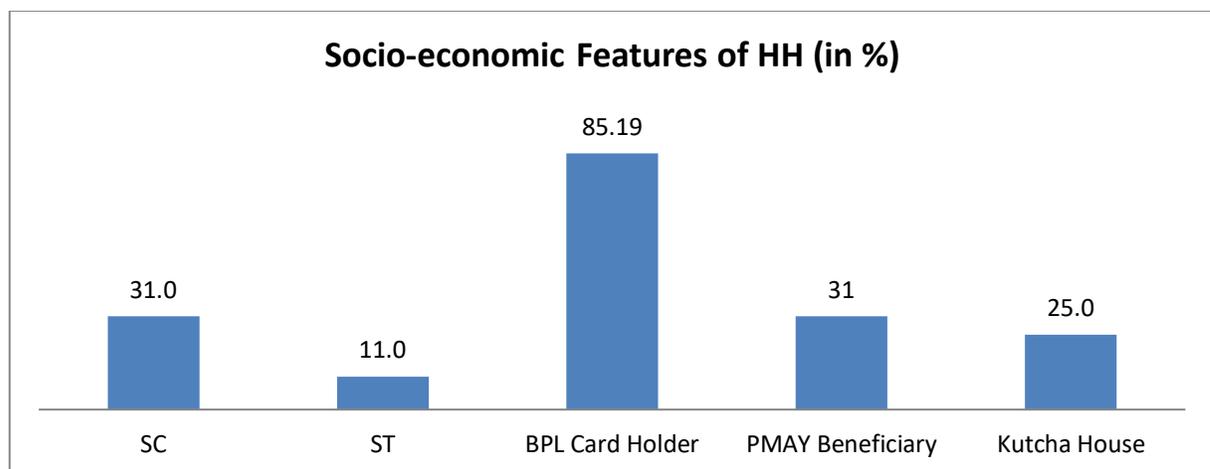
The methodology for assessing the sustainability of livelihood mainly involves direct interaction with beneficiaries through structure questionnaires selecting individual beneficiaries as well as beneficiaries of community works under NRM. In each of the chosen Gram Panchayats, ten beneficiaries for NRM assets (individual or community) were selected for direct interview. The selection procedure also tried to include at least one household from each of BPL, SC/ST, small and marginal farmers. Focus group discussions were also administered at village community to understand the benefits from community assets specifically. Moreover, to understand the benefits of MGNREGA holistically from the perspectives of different stakeholders, one-to-one interaction guided by a semi-structured questionnaire was also conducted to extract information from officials involved in NRM at village, block, and district level.

Impact analysis is based on comparison of various NRM features before and after creation of the assets during the reference period. Being a rapid assessment survey of the NRM component, the sample of districts and blocks may not represent the entire spectrum of NREGA activities and the impact of such activities for the rural economy. It broadly represents the *average* picture of

MGNREGS beneficiaries of NRM individual and community assets in those districts where per worker fund availability was around the average level during the reference period.

Socio-economic characteristics of the selected 1200 beneficiary households

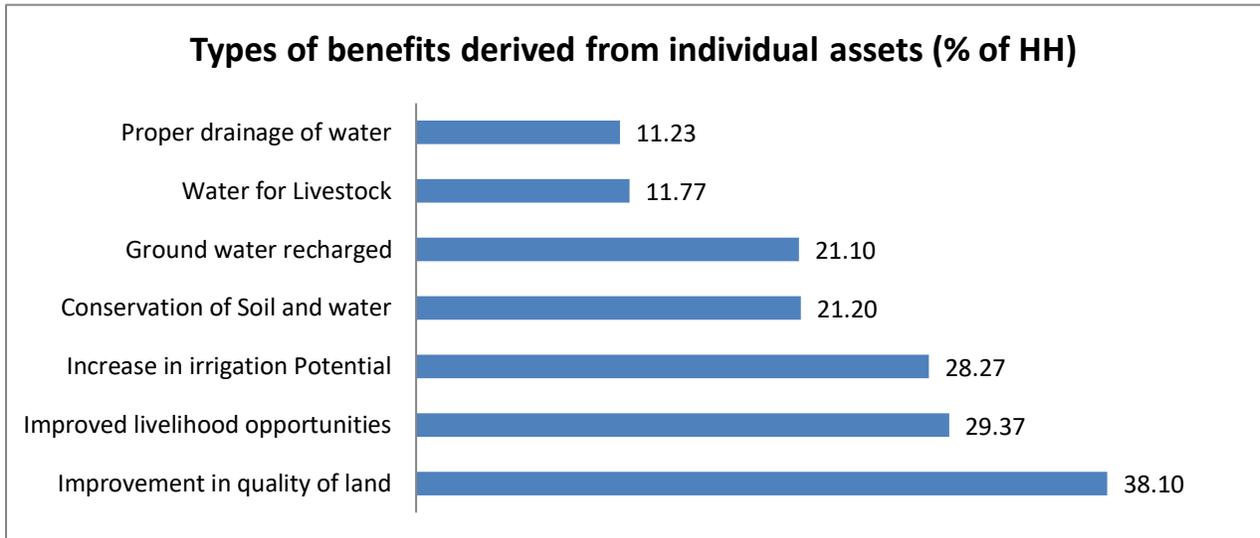
- 85 percent were BPL card holders.
- 31 percent of sampled households were beneficiaries of Prime Minister Awas Yojna (PMAY).
- 31 percent of households were Scheduled Castes and 11 percent Scheduled Tribes.
- Average household size was of 6 members.
- In 14 percent households, members were illiterates and another 8 percent were literate without formal educational qualification. At least one person in the house studied up to 12th standard or more in about a third of the households.
- Occupation: Small and marginal farmers constituted 65% of the sampled households and another 25% reported wage labour as their major source of income.
- Average land size was 2 acres and there was very little change in land size across districts reflecting thin land market.



Benefits of NRM Assets

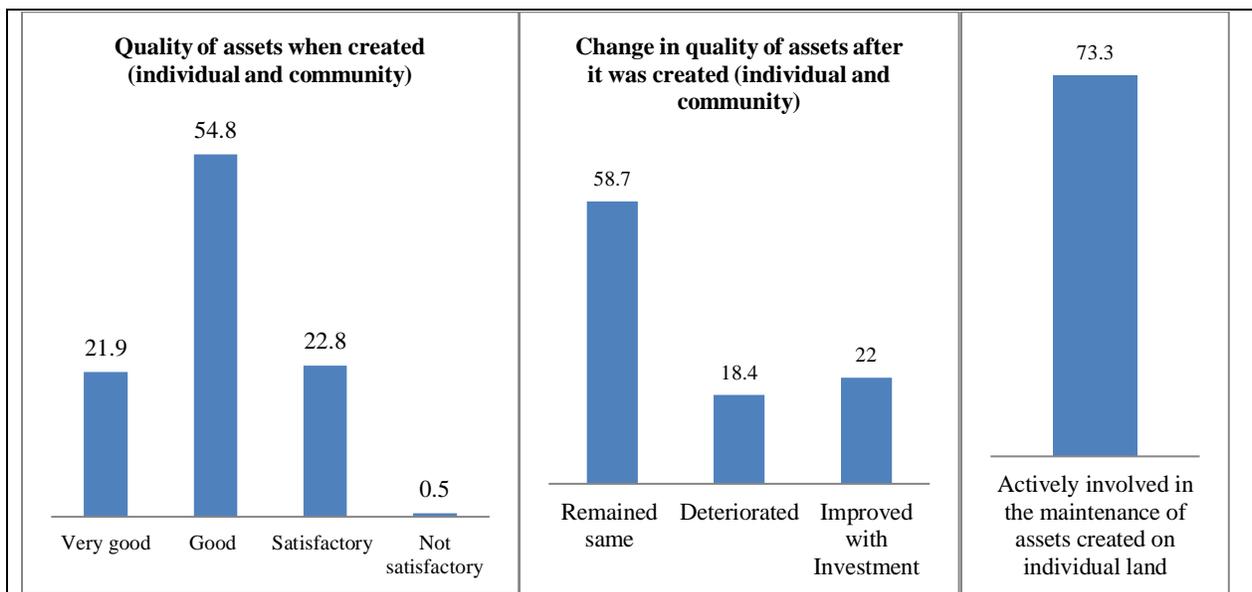
The beneficiary households reported several types of benefits being derived from the NRM assets created in NREGA. Increase in irrigation potential was reported as the prime benefit from the creation of community assets. Both individual and community assets beneficiaries experienced increase in ground water table. Similarly, NRM assets have helped small and marginal farmers to improve livelihood opportunities. Besides, a significant proportion of household beneficiaries found that access to water for livestock has increased. These are important factors contributing to sustainability of rural livelihood of small and marginal farmers. Overall, it can be said that both

individual and community assets are helping the rural community in certain important aspects that contributes towards sustaining and improving livelihoods.



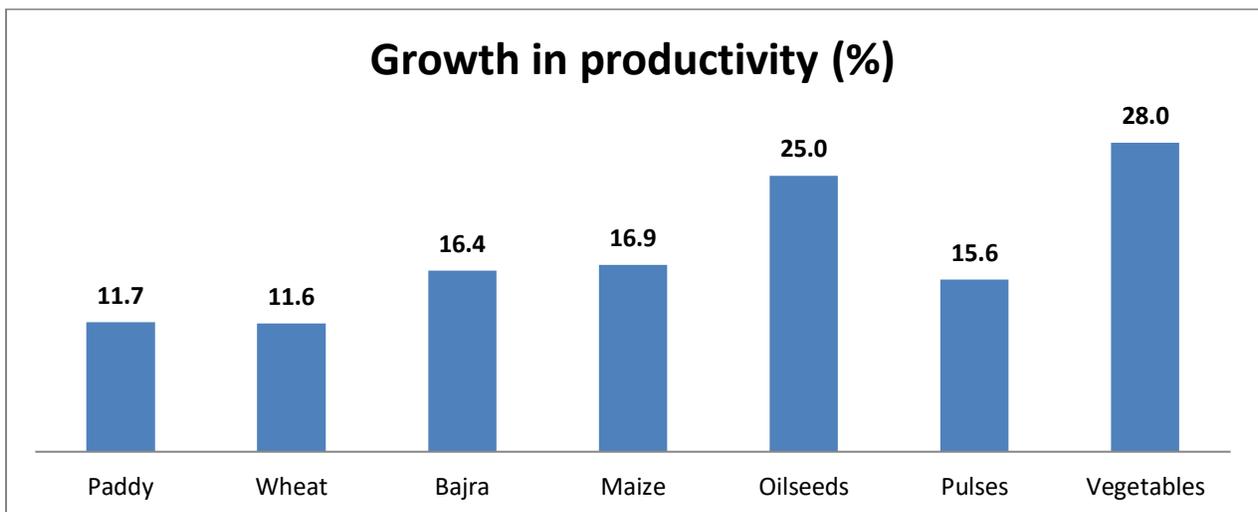
Quality of Assets: Users' Perspective

Though there are technical aspects to assess quality of assets, we have attempted to get the users' perspective on how they view the quality of assets created on individual and community land. Surprisingly, as many as 76% households thought quality of assets when created was good or very good in contrast to common perception about public works programmes. Moreover, 58% of respondents thought assets quality remained same after they were created. But, 18% of respondents reported that that the quality of assets had deteriorated. Another interesting response was that 73% of respondents indicated that they were actively involved in maintenance of assets created on individual land.



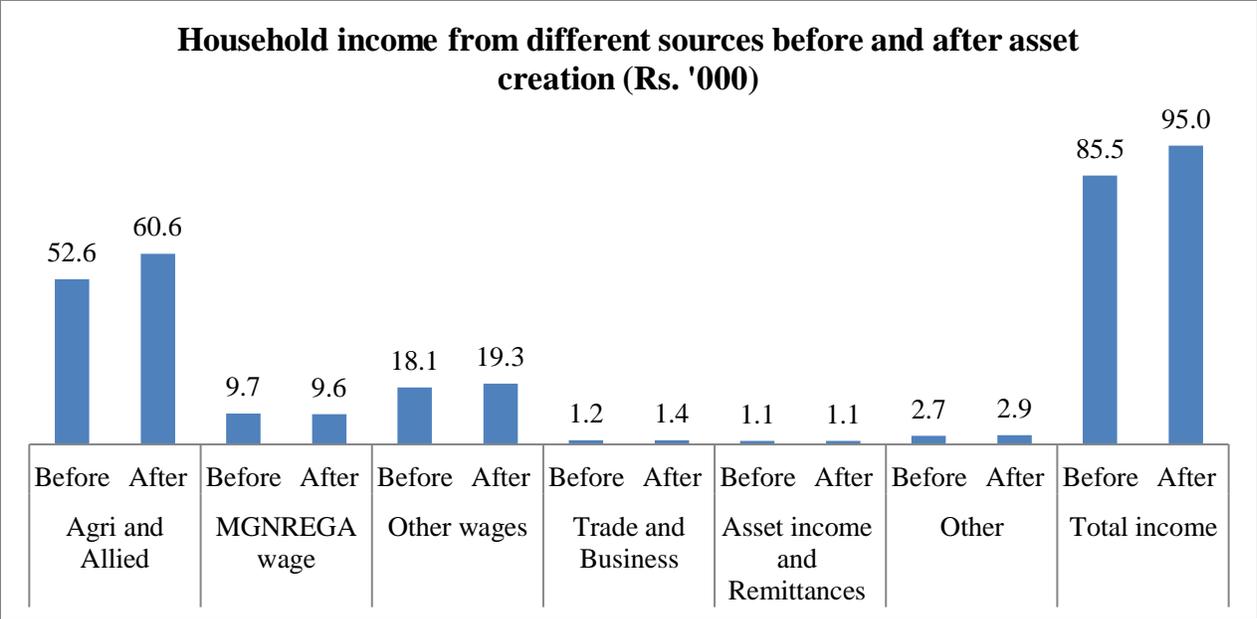
Agricultural Productivity Growth

The graph below depicts productivity growth for different crops. Participants in NRM assets reported a productivity growth of about 11% for rice and wheat, 16% for bajra, maize and pulses during the post-assets creation period compared to pre-assets creation period. Oilseeds and vegetables indicate productivity rise by a larger extent. Oilseeds productivity rose by 25%. The largest increase of 28% is reported for vegetables. These are obviously considerable productivity gains for the small and marginal farmers benefiting from the NRM assets.



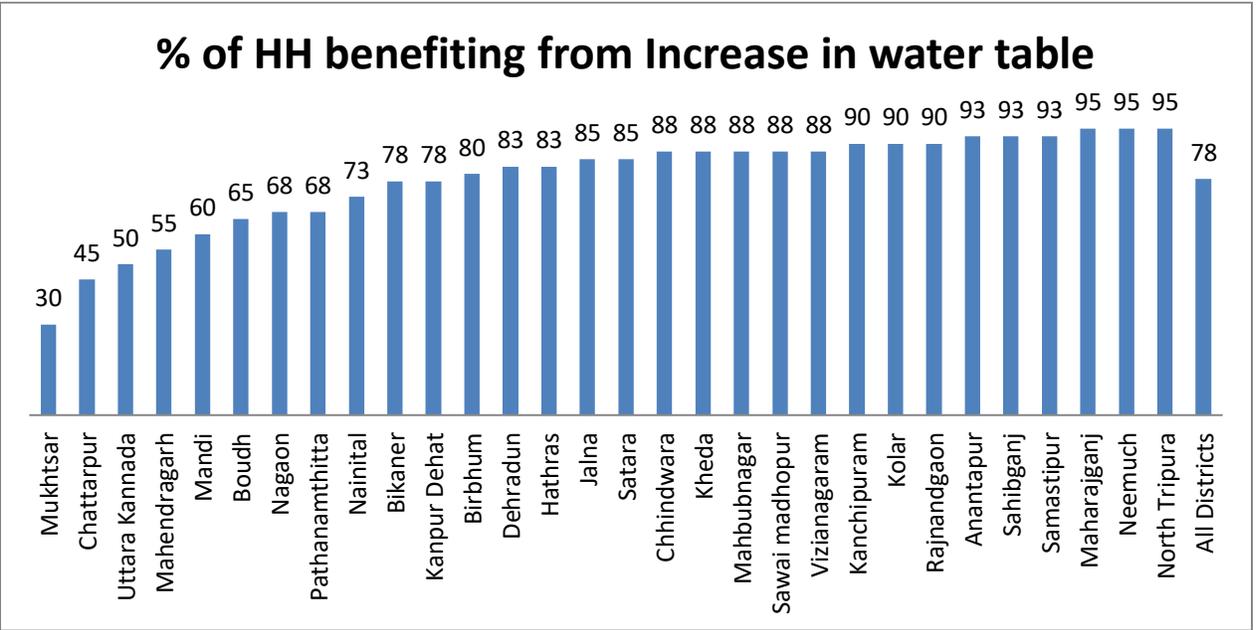
Household Income

The respondents reported that per household income from agriculture and allied activities increased by 15% from Rs. 52,600 before assets were created to Rs. 60,600 after the assets were created. NREGA wage income fell marginally from Rs. 9,700 to Rs. 9,600, but non-NREGA wage income rose from Rs. 18,100 to Rs. 19,300. Agricultural income, non-NREGA wage and NREGA wage were the three major sources of income for the households in that order and together contributed to 94% of total income. On the whole, household income increased from Rs. 85,500 to Rs. 95,000 indicating a rise of 11% for the NRM beneficiaries.



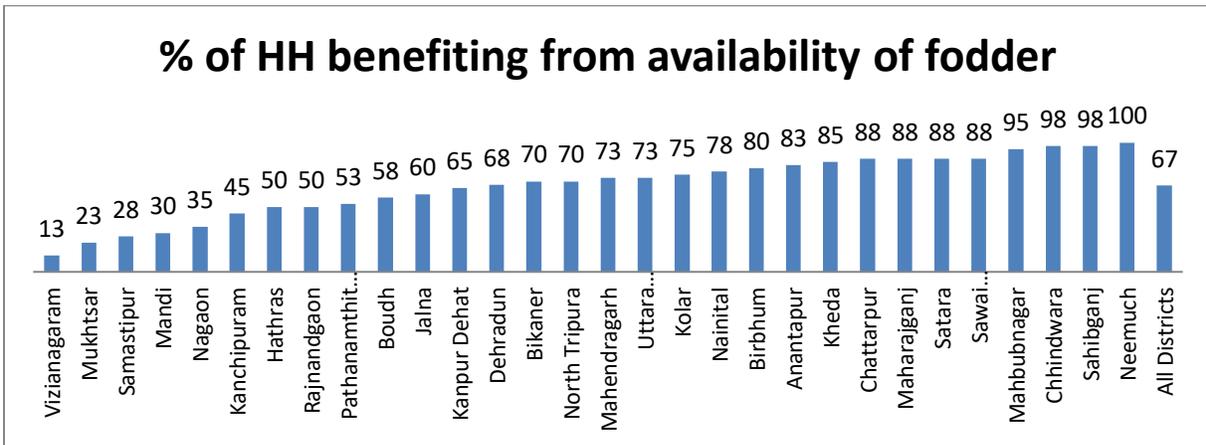
Water Table

Water table rise has been felt as a major ecosystem gain by the respondent households with as many as 78% of respondents reporting gain after construction of the NRM assets. The percentage varies from 30% in Mukhtsar (Punjab) and 45% in Chhatarpur (Madhya Pradesh) to 95% in Maharajganj (Uttar Pradesh), Neemuch (Madhya Pradesh) and North Tripura (Tripura). While this study does not relate to a technical evaluation of water table, the villagers predominantly perceive the benefits on long term sustainability of the agricultural activities.



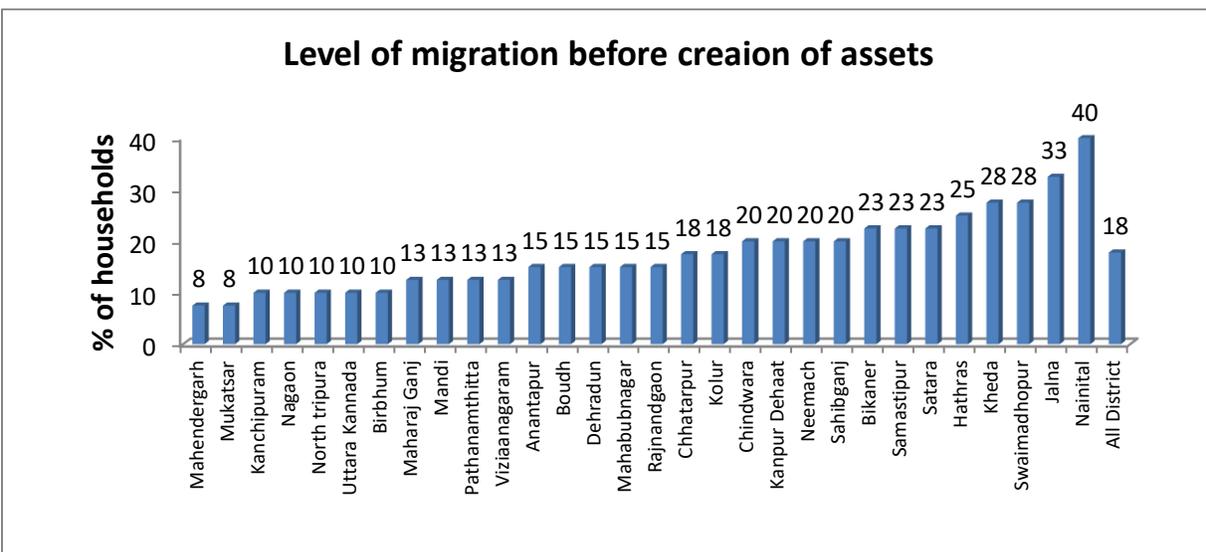
Fodder availability

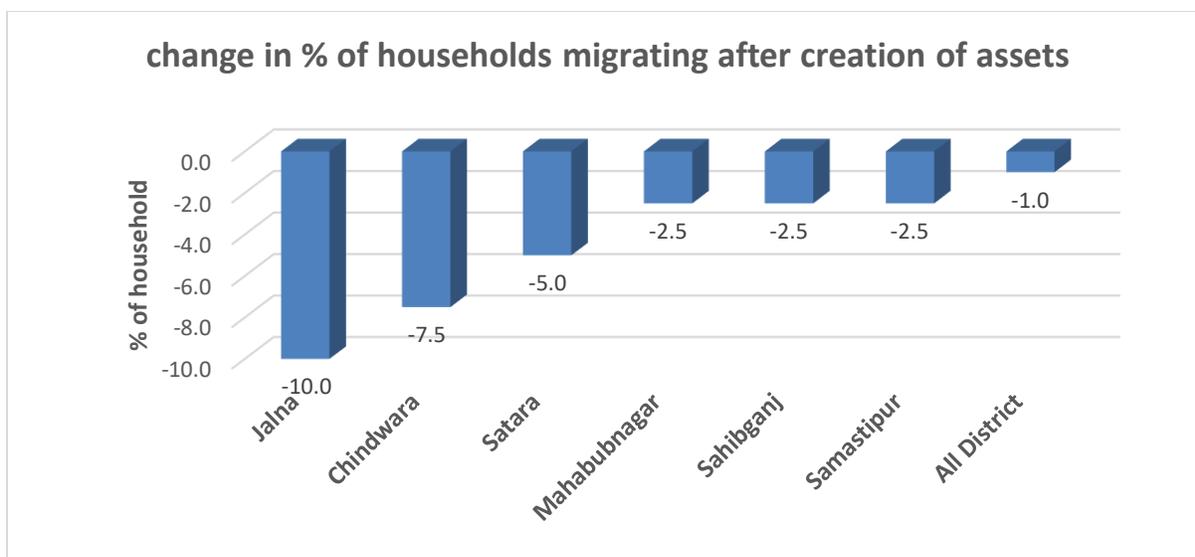
There is again a wide variation in responses across districts on availability of fodder. On the whole, two-thirds of the households report benefitting from fodder availability. Only 13% of the respondents mentioned benefitting from fodder availability in Vizianagaram district in AP, but all the respondents in Neemuch in MP reported the benefit. The low response in some districts may be related to adequacy in fodder availability before the NRM activities were undertaken.



Migration

Seasonal migration in search of jobs is a normal feature for some low-income households in rural areas. All 30 districts taken together, 18 percent of NRM beneficiary households reported migration with a range varying from 8% in Mahendergarh (Haryana) to 40% in Nainital (Uttaranchal). The percentage of migrating households fell in 6 of the 30 districts covered in the survey, the highest being 10% for Jalna in Maharashtra. In the other 24 districts, percentage of migrating households did not change.





Conclusions and Suggestions for Improvement

On the whole, the NRM component of MGNREGA has introduced substantial changes in the MGNREGA operations. There has been greater emphasis on individual assets in recent years, though community assets remain important. Its impact on productivity, income, migration, new activities is noticeable within a short span of 2-3 years. The convergence of different development programmes with MGNREGA has helped in creations of meaningful assets. These assets have increased agricultural productivity and income of rural households and have been helpful in creating certain non-tangible benefits as well. The quality of assets on individual land is perceived to be better than the assets created on community land and households are paying attention to maintenance of assets created on their own land.

When productivity aspects do not get priority, expenditure on public employment programmes are basically seen as transfer payments which are needed for certain groups in the society. But, productivity aspects cannot be neglected in large scale public employment programmes such as MGNREGA. Seen from this angle, the emphasis on NRM is a welcome move that attempts to strike a balance between growth and distribution objectives of development.

We mention below some points that may enhance the effectiveness of the programme further.

Convergence of MGNREGA with development programmes: MGNREGA is primarily meant for providing employment to unskilled labourers with only 40 percent of expenditure meant for procurement of material cost. The convergence of MGNREGA with other development programmes helps in expanding volume of fund available and creating better assets. In the recent years, such convergence has increased significantly in creating different kinds of assets such as flood control, water conservation & water harvesting, renovation of traditional water bodies,

irrigation facilities, land development and connectivity. There is further scope for expanding convergence.

Delay in Payment: In recent years, transparency and timeliness of payment in MGNREGA has increased tremendously with account based payment, digital signature of concerned executives, concurrent changes in mode of payment like inclusion of executives only. Yet, field visits indicate some delay (beyond 15 days) in payment of material cost and wages. Delay in payment to material supplier of MGNREGA is more than the delay in payment of wages. Field level enquiry into possible reasons for such differentiated delay suggests that Union government solely provides wages of MGNREGA workers; whereas both Centre and State Government contribute in 75:25 ratio to material cost. At times, there is delay in receiving matching grant from State government.

Wage Rate: In many regions, average wage earned by NREGA workers per day is lower than the market wage. In certain districts like Mahendragarh, it is even lower than the minimum wages. In some regions, of course, the wage of MGNREGA worker is higher than the market wage. A high wage rate disparity with market wage and limitation in the use of machineries restrict work of MGNREGA in few regions. MGNREGA wage is normally paid on piece basis, but it should take care of heterogeneity of efforts required; for example, 30 cft/day is maintained uniformly for cutting of both hard and soft soil in the state of Tripura.

Burden, Job Stress: At block level, technical coordinator provides technical sanction for a work, but due to shortage of staff, the technical coordinator of a block may have to look after another block also. As a result, sanction of projects gets delayed. Field visits show that there is too much of paper work for MGNREGA staffs, though most of details related to MGNREGA can be accessed from different kind of MGNREGA software.

Minimizing Paper Work: Considering the use of technology in MGNREGA, the study suggests minimization of the use of paper work further. For example, the PFMS (Public Financial Management System) can trace money spent in MGNREGA. On similar line, MIS based information will be helpful in reducing papers and registers. Field visit suggests that three registers related to asset creation (plan, estimate, work and job order) can replace requirement of 7-8 registers at Panchayat level.

Transparency: There have been many attempts to increase transparency in recent years: three stage photography, geo-tagging at different stages, e-measurement and certification of work, strictness in determining work and wages. The procedure related to MGNREGA is changing rapidly to increase transparency and efficiency. Expanding social audit further could be a good move.

Table 1: List of Selected Districts

Agro-Climatic Zones	State	District
Western Himalayan	Himachal Pradesh	Mandi
	Uttarakhand	Dehradun
		Nainital
Eastern Himalayan	Assam	Nagaon
	Tripura	North Tripura
Lower Gangetic	West Bengal	Birbhum
Middle Gangetic	Bihar	Samastipur
	Uttar Pradesh	Maharajganj
Upper Gangetic	Uttar Pradesh	Hathras
		Kanpur Dehat
Trans Gangetic	Punjab	Muktsar
	Haryana	Mahendragarh
Eastern Plateau	Jharkhand	Sahebganj
	Odisha	Boudh
Central Plateau	Madhya Pradesh	Chhatarpur
		Chhindwara
	Rajasthan	Sawai Madhopur
Western Plateau	Maharashtra	Satara
		Jalna
	Madhya Pradesh	Neemuch
Southern Plateau	Karnataka	Kolar
	Andhra Pradesh	Anantapur
	Telangana	Mahbub Nagar
Eastern Coastal	Tamil Nadu	Kanchipuram
	Andhra Pradesh	Vizianagram
Western Coastal	Kerala	Pathanamthitta
	Karnataka	Uttar Kannada
Gujarat Plains	Gujarat	Kheda
Desert Region	Rajasthan	Bikaner