Rural Sociology

MGNREGS: SUPPLEMENTING FARM SECTOR

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ABSTRACT

This study reports on a survey of 1705 users of 1487 assets created under the Mahatma Gandhi National Rural Employment Guarantee Scheme in six states. The study found that 90 percent of asset created, physically exists in field. It provides evidence that MGNREGA assets support agriculture and benefit a large number of small and marginal farmers. An overwhelming 85 percent of the respondents considered the assets as very useful, while only two percent felt they were useless. Overall, this study suggests that the MGNREGA is beneficial for farm sector.

Keywords: Impact of MGNREGA assets, MGNREGA, sustainable development, Uses of assets.

INTRODUCTION

Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) was enacted on 7th September 2005 with the objective of providing 100 days of guaranteed wage employment in a year to the rural poor so that they can expect to earn a living wage with dignity. The Act envisages, for instance, that the works undertaken will strengthen natural resource management and address causes of chronic poverty such as drought, deforestation, and soil erosion, thereby encouraging sustainable development. MGNREGS is the largest public works employment project in the world. Since last three years (2013-2015) MGNREGS spent   Rs. 1, 14,531 crores on public works. It is a direct poverty reduction pathway operatd through boosting employment and income for the poor.

The recent intense focus on Mahatma Gandhi NREGA has been on understanding the quality and durability of assets created, to assess the impacts of MGNREGA assets, focusing on environmental services, land and water resources availability (Sudha Narayanan *et al* 2014;Esteves *et al* 2013; Aggarwal *et al* 2012; Dhannjaya *et al* 2011, for example).[1] Such systematic efforts are still relatively infrequent. One explanation for the paucity of studies assessing the impacts of MGNREGA assets has been that it is too early for impacts to be

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visible. However, with ten years of the MGNREGA programme behind us, this constraint is less relevant today. We propose to contribute to the emerging body of evidence by focusing on MGNREGA assets.

The following section outlines the approach and methods used in this study, and it is followed by sections on different aspects of MGNREGA assets from six states and impact of MGNREGA assets on agriculture.

THE STUDY: SAMPLING AND METHODS

This study sought to accomplish three goals. The first was to verify the assets created under the MGNREGA, and to document their condition and quality. This was to address the concern that many of these assets are only on paper. The second was to record the beneficiary perception on uses and impacts for water and land development related assets. The third was to bring out the productivity of the assets created in individual land. This was to record the benefits of farmers through the assets created.

We cover one state from each region and a total of six states were selected based on highest wage expenditure in the financial year 2013-14. The selected states are West Bengal from East, Gujarat from West, Kerala from South, Jammu & Kashmir from North, Madhya Pradesh from Centre and Tripura from North east. In each of states, top two Gram Panchayats (GPs) with highest wage expenditure were automatically selected based on the Management Information System (MIS) data of financial year 2013-14. All the works that were issued completion certificates during 2013-14 were listed from the MIS for a census verification of assets in the selected GPs. The sample GPs accounted for 41.5% community assets and 58.5% individual assets. User's perception is collected from the beneficiaries for the assets related to water and land development. In the case of community assets, two user perceptions were collected from the users of the asset. In the case of individual asset, the user's perception as well as return on investment (RoI) was additionally collected.

Sample households were identified for each MGNREGA assets depending on whether they were on private or public land. For assets on private land, the household of the land owner or of the person who operated the land was considered the beneficiary household, and interviewed (Table 1). The spatial delimitation method was followed to prevent the arbitrary choice of respondents for selection of beneficiary household for community assets. The two households that were selected were such that one is near to the asset and second distant from the asset.

The MGNREGA assets were broadly classified and aggregated into community assets and individual assets for the purpose of survey. Further administrative classifications were considered to capture the types of assets.[2] The survey was conducted from February to May 2015 by 60 trained enumerators drawn from State Institute of Rural Development (SIRD). The survey was conducted in six phases and each region took place in one phase.[3] The survey instruments were translated into Hindi and local language. Three questionnaires were prepared for this study that included issues like instrument on asset verification, user perception and return on investment. Overall, the survey included verification of 1487 assets, 1705 beneficiary households spread across 12 GPs in six states. Of the respondents 41 percent were women.[4]

Table 1: Beneficiaries

Characteristic	Percent
Social Group	
General Category	17.1
Other Backward Class	37.5
Scheduled Caste	17.6
Scheduled Tribe	9.9
Minorities	17.9
Economic Status	
Above Poverty line	51.3
Below Poverty Line	45.3
Antyodaya Anna Yojana	3.5

Source: Primary data collected from field

EXISTENCE OF ASSETS

The study covered a total of 1487 assets for verification, out of which 90 percent of the assets are physically existing in the field as per MIS and asset register. Out of 1487 assets verified, 23 assets (1.5 percent) did not physically exist in field (Figure 1).
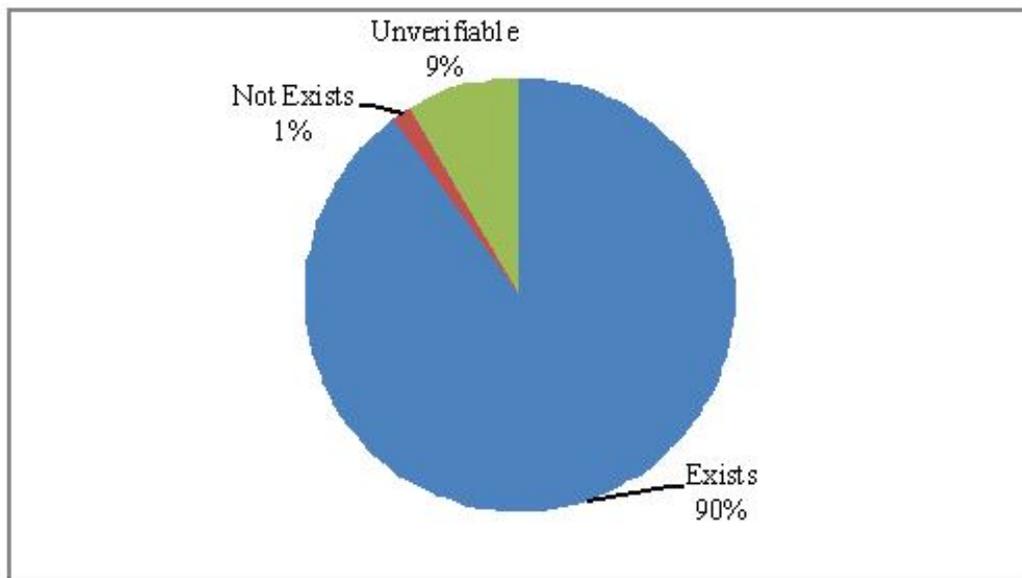
Source: Primary data collected from field

Figure 1: Existence of MGNREGA Assets

Out of the six states where the assets were verified, two states had assets which were cent percent verified, four states had assets that did not exists (Table 2).Gujarat and Jammu & Kashmir are the states where cent percent assets existed on ground. West Bengal, Madhya Pradesh, Kerala and Tripura are the states where few assets did not exist. In community assets category, 0.2 percent did not exist and in individual assets category 2.5 percent did not exist. It is apparent from the study that greater number of the individual assets did not exist.[5] Following assets did not exists: Drought Proofing (5.6 percent), Water Harvesting (1.6 percent), Irrigation Facility (1.4 percent) and Land Development (0.4 percent). The enumerators were not able to verify 8.5 percent of assets. They were not able to justify the existence of asset. The "Unverifiable" assets existed at some point in time but were damaged or destroyed. This however included assets that were intended to be temporary for example the plants that died due to lack of rainfall and the pond renovation works which could not be verified due to the pond filled with water.

Table 2: Missing Assets

| State	Total Assets (Nos)	Missing Assets (Nos)	Missing Assets (percent)
Gujarat	123	0	0
Jammu & Kashmir	19	0	0
West Bengal	264	19	7.2
Madhya Pradesh	172	2	1.2
Kerala	286	1	0.3
Tripura	623	1	0.2
Total	**1487**	**23**	**1.5**

Source: Primary data collected from field

STATUS OF ASSETS

The study finds that overall only three states have initiated the convergence with line departments.[6] Among the total assets created, only one percent assets were created through convergence. In Gujarat, the convergence was found with forest department and nine percent assets were created through convergence. In Kerala, there has been convergence with the agriculture department but on a very small scale.

Quality of Assets

The survey found that a majority of the respondents (81.4 percent) perceive that the quality of asset is "Very good". Only 13 percent beneficiaries have reported that the quality of assets is average and two percent beneficiaries have answered that the quality of assets is poor (Figure

2). It is seen that 47.8 percent individual assets and 52.2 percent community assets are very good in quality. Further 44.3 percent individual assets and 55.7 percent community assets were found to be average in quality. Horticulture (22.2 percent), Drought proofing (58.3 percent) were found to be the ones reported to be of poor quality. Particularly the respondents reported that the quality of plants was very poor. Further 39.3 percent land development assets, 14 percent flood protection, irrigation facility and drought proofing works were found to be of very good quality. More than three fourth of respondents from Jammu & Kashmir, Kerala, Madhya Pradesh and Tripura have claimed that the quality of work is very good. Near to one fourth of respondents from West Bengal have reported that the quality of asset is average. Majority (13.5 percent) of respondents from Gujarat have reported that the quality of asset is poor. (Figure 2).
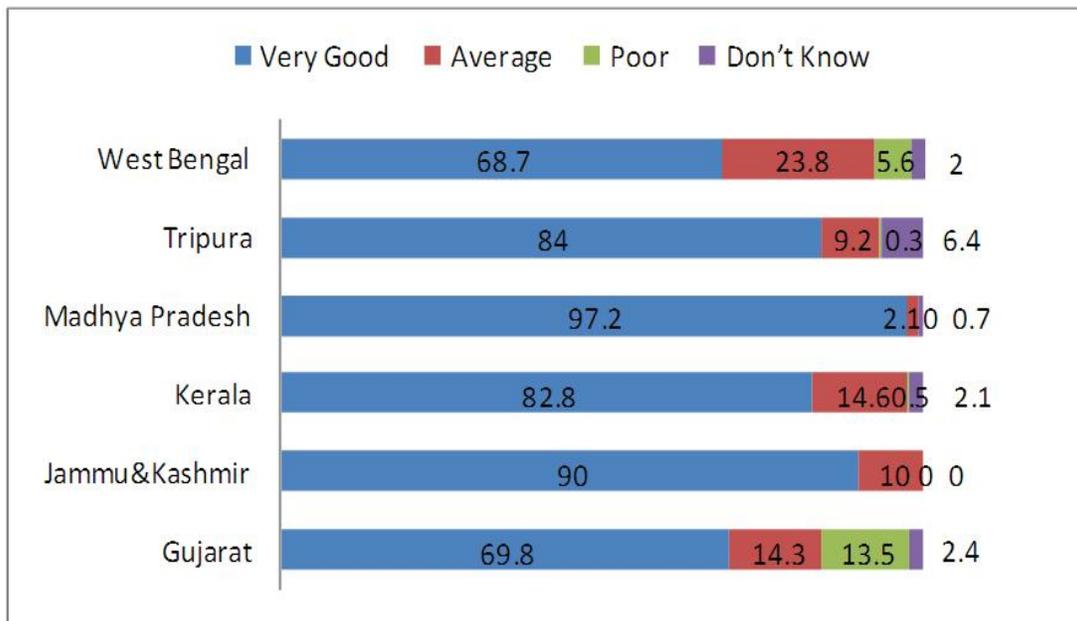
Source: Primary data collected from field

Figure 2: Quality of MGNREGA Asset

Relationship between quality of assets and select variables

Out of six variables, correlation coefficient of four variables namely types of assets (.212), Social group of beneficiary (.081), and Economic status of beneficiary (.080), Awareness of beneficiary on MGNREGS planning (.113) is highly significant and positively correlate with the quality of work (Table 3). It defines that the quality of asset created depends on the types of assets created and awareness of beneficiary on MGNREGS planning process. The quality of asset created in individual land also depends on social group of beneficiary and economic status of beneficiary.
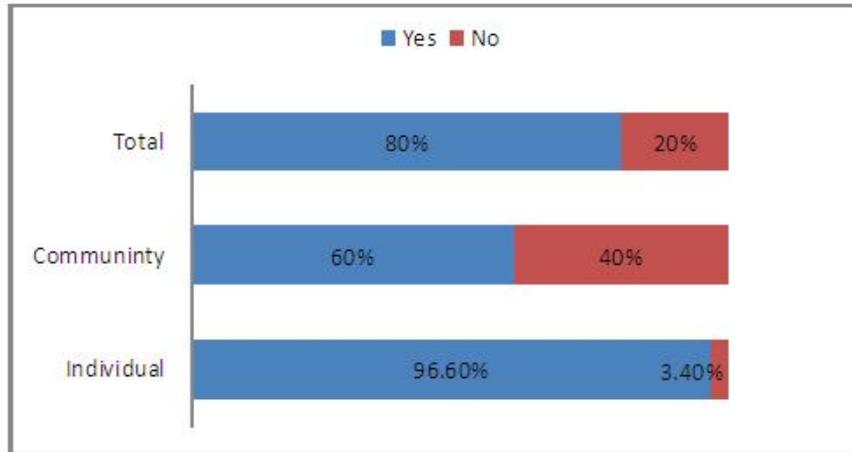
Table 3: Correlation analysis of quality of assets

S.No	Variables	Coefficient correlation (r)
1	State	-.014
2	Category of assets	.011
3	Types of assets	.212**
4	Social group of beneficiary	.081**
5	Economic status of beneficiary	.080**
6	Awareness of beneficiary on MGNREGS planning	.113**
*Correlation is significant at 0.05 level of probability ** Correlation is significant at 0.01 level of probability		

Condition of assets

More than three fourth (76.1 percent) of the assets were found in "Good condition". One out of five (20.2 percent) assets was found partially damaged and two percent of assets were "Fully damaged". More than one third (42.3 percent) of community assets and 4.5 percent of individual assets are partially damaged. Four percent of community assets and one percent of individual assets are fully damaged. It is evident from the data that the community assets are more damaged than individual assets. Tripura and Madhya Pradesh are top two states having more than 80 percent of good condition of asset. It is followed by Gujarat, Jammu & Kashmir, and West Bengal which are having more than 70 percent of "Good condition" assets. Kerala is the only state which is having low percent of assets in good condition. More than 90 percent of the water harvesting, rural sanitation and other public works are in good condition. More than 80 percent of flood protection assets are partially damaged. More than three fourth of drought prone works are fully damaged.

Maintenance of Assets

More than three fourth of assets are maintained by the beneficiary. It is apparent from the study that 40 percent community assets are not maintained by the community and 3.4percent individual assets are not maintained by beneficiaries (Figure 3). The maintenance of asset is essential and where the assets are not maintained there is every possibility of damaging the assets. Further it is observed that near to three fourth (73.4 percent) of flood protection assets and one third of rural sanitation works were not maintained. One fourth of rural connectivity works and more than 10 percent of land development, water conservation and irrigation facility works were also not maintained. Tripura (98.7 percent) is holding the first rank in maintaining the assets followed by West Bengal where 86.4 percent of assets were maintained by the beneficiary. Kerala is having highest number of assets(51.7 percent) that were not maintained properly. One third of assets in Gujarat and Madhya Pradesh were not maintained.

Figure 3: Maintenance of assets (Individual Vs Community)

MGNREGA ASSETS AND THEIR USES

Of the assets verified, awesome proportion supported farming activities, directly or indirectly. One third of the assets were on land development. It includes land levelling, earth filling, plantation, clearance and platform. A comparable share of assets pertains to water conservation and harvesting. Majority of water related assets were created on public land. It includes digging pond, digging well, desilting of lake, farm pond and supply channel. Most of the water related assets are renovation of existing structure. Flood protection, drought proofing, roads and toilets were accounted for rest.
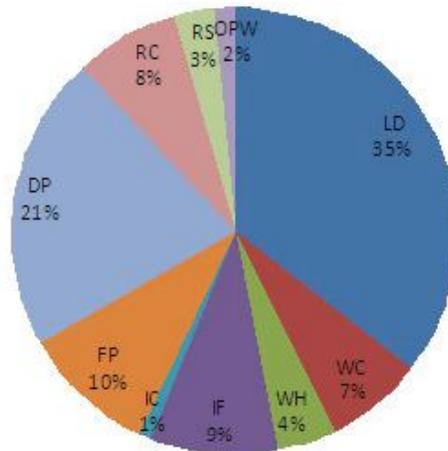
Figure 4: Assets types surveyed

The distribution of sample assets across the states reflected the diversity of the states according to their local needs. Majority of the assets in Tripura are land development where the community needs land levelling works. The barren land were levelled and used for house construction as well as cultivation. Tripura had a lion's share of land development assets. Horticulture plantation works on private land was found more in West Bengal. The plants were provided by the forest department and planted through the MGNREGS labour force.

Usefulness of assets

It is evident from the study that more than two third (84.6 percent) assets are "Very useful" to the beneficiary and 12.4 percent beneficiaries felt that the asset created under MGNREGS is "Somewhat useful."[7] Further two percent beneficiaries reported that the assets are "Not useful"(Table 4). The individual and community assets were rated equal in terms of their usefulness. Many of the drought proofing (58.8 percent) and horticulture (23.5 percent) assets were reported to be non-useful. It indicates that quality of work may not have been good. It was also possible that those households which participated in MGNREGA assets selection process in Gram Sabha found assets most useful to them.

Table 4: Assessment of usefulness

Usefulness	Percentage	Number of responses
Very useful	84.6	1443
Somewhat useful	12.4	212
Not useful	2	34
Can't say/Don't know	.9	16
Total	100	1705

Source: Primary data collected from field

Generally, there was not much variation in usefulness of assets based on types of assets. Other public works, Water conservation and Land development assets were found to be "Very useful" by 100 percent, 91.5 percent and 90.5 percent respectively. The respondents felt that creation of asset in individual land is greater incentive for them. Horticultural works and drought proofing assets were found "Very useful", by only 37.8 percent and 72.5percent respondents respectively. Close to 10 percent of respondents reported that the horticulture and 20 percent drought proofing assets were "Not useful". The major share of horticulture works were done in West Bengal where the quality of plants was not good and the fencing was not done. The respondents reported that though fertilisers were included in maintenance, same was not provided.

Extent of benefits

As per field data, the assets surveyed had generated 1066703 mandays and the mean persondays of asset created is 717. Over the assets created, the average wage paid per beneficiary household is Rs.3,122. Asset surveyed benefitted 66454 families. The roads had

the widest impact, as one would expect with 243 households benefitting on an average from all the assets surveyed. The total number of household benefited through rural connectivity asset surveyed is 62254.

The MGNREGS created significant impact on migration in eight states. In Tripura, the migration has come down to zero in sample Gram panchayat. In Gujarat the study finds that the migration has decreased to 65 percent. It is revealed from the study in Madhya Pradesh and Kerala,that migration has reduced by 50 percent.

IMPACT OF MGNREGA ASSETS ON AGRICULTURE

From the study, it is clear that small and marginal farmers were benefited through the MGNREGA. The average size of land owned by the sample household was 1.7 hectares, and the median land holding size was one hectares. The household most likely to benefit from MGNREGA assets were farmers with either small or marginal land holding size. While surveying MGNREGA assets on private lands, it was found that assets were on lands that belonged to small(75%) and marginal farmers(18%). Rest of the beneficiaries were big farmers. The small and marginal farmers were not willing to give their land for asset creation due to small land holding size. Among the farmers benefited, majority of them were Scheduled caste (21.7 percent) and Scheduled tribes (14.7 percent). Further half (51 percent) of the farmers benefited were Below Poverty line (BPL).

Nature of benefits on Land development work

The study provided evidence that many of assets created under MGNREGS represented new and substantive additions to the resource base and infrastructure, the extensions or additions of assets aimed at improving the functionality of existing assets. An overwhelming majority of respondents claimed that the land value has increased through the land development work done in individual land.

Among the sample assets, 64.4 percent of land development has been done (out of 2576 acres 1661 acres) through MGNREGS land development activities. The beneficiaries reported that, on an average there has been an increase in the land value up to 100 percent through MGNREGS land development activities. In other words, on an average the land value in India which was Rs. 18, 72,786/- per acre has increased to Rs.35, 42,225/- per acre through MGNREGS land development activities and other factors.

In the state like Tripura, the land development works were useful for the beneficiaries to construct the house and it fulfilled the basic needs. Further the developed land was also used for cultivation and the barren land brought into the cultivation. More than half (59 percent) of beneficiaries claimed that due to land development work, the income of the family has increased. Several farmers claimed that their families were able to have three meals in a day with the help of developed land. Few of them also reported that the water level has increased and the sanitation facilities improved.

Nature of benefits on irrigation works

On water conservation, water harvesting, irrigation, flood protection and drought proofing, a wide range of uses were cited. An overwhelming majority of respondents suggested that they

had been able to change the cropping pattern. Among the farmers who claimed changing of cropping pattern, close to one fourth of farmers reported that they were able to cultivate double cropping. Near to five percent claimed that they were able to cultivate multi crops. Further 3.5 percent of farmers reported that they shifted from dryland crops to irrigation crops. The water assets also benefited farmers to increase the utilisation of family labour, increase production, increase income and to reduce the migration for labours.

Impact on Agriculture productivity

Overall 56.3 percent of farmers felt that there is a "significant increase" in productivity. Further one fourth (28 percent) of farmers claimed "moderate increase" in productivity followed by 3.5 percent who reported "less significant" impact on productivity. It is also evident that whenever the quality of asset was rated good; the farmers also responded that created assets benefited significant increase in productivity. Cent percent of farmers from Kerala reported the "significant increase in productivity" and more than three fourth of farmers from Madhya Pradesh, and Gujarat claimed significant increase in productivity. Higher percent of farmers from Jammu Kashmir and West Bengal reported less significant impact of asset creation on farm productivity.

Impact on Area under cultivation and irrigation

The individual farmers in the sample reported that totally 268.6 acres of un-cultivable land has become cultivable land through MGNREGS work. Further 1404 acres of land has got irrigation facilities through the water harvesting work. On the whole around seven percent of the land has become cultivable land through MGNREGS water harvesting and irrigation activities. There is a significant impact of MGNREGS assets on extending irrigation facilities (26.4 percent) compared to pre-MGNREGA innervations. Tripura, West Bengal, Madhya Pradesh and Kerala were the states; where the area under cultivation has increased.
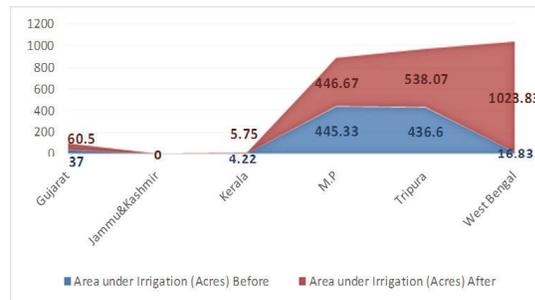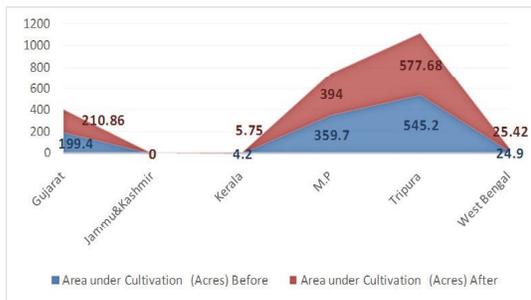
Source: Primary data collected from field

Figure 5: Area under cultivation   **Figure 6: Area under irrigation**

SATISFACTION WITH MGNREGS

Among those interviewed, at the national level 75 percent of beneficiaries reported complete satisfaction followed by 14 percent beneficiaries reporting that they were partly satisfied and another one percent of beneficiaries reported dissatisfaction. Almost 99 percent of the beneficiaries are happy with MGNREGS implementation.

SUMMARY AND CONCLUSION

The study carried out the perception of beneficiaries on MGNREGS assets as to whether the MGNREGS is perceived anti–farmer because it employs workers in huge numbers but the study found that the assets are beneficial to agriculture and primarily benefits small and marginal farmers significantly. MGNREGS is functioning as supplement for agriculture. The common perception held nationwide is that many of MGNREGS assets exist only on paper and not on the ground and does not create anything productive. But, the survey found that the assets physically exist in the field as per MIS and asset register. Thus, the perception is not completely true. Further it is perceived that MGNREGS assets are not durable. It is not either true because majority of respondent suggests that the quality of asset is very good. The assets were maintained by the beneficiary and an average of Rs 8000 was spent by the beneficiary to maintain the asset created in their land. To improve the quality and uses of assets, greater attention need to be given in selection of assets based on needs of local community. As study findings show, land value has increased due to individual land development activities. More focus and priority should be given to build individual assets as well as for land development activities. MGNREGS has resulted into value capture by the beneficiaries.

ACKNOWLEDGEMENT

ENDNOTES

1. Other studies include Sushanta Kumar Mishra (2011); Shilpi Verma and Tushar Shah (2010); Govind Kelkar (2011).

2. Administrative data classify works into the following categories- Land Development (LD), Water Conservation(WC), Water Harvesting(WH), Irrigation Channel(IC), Irrigation Facility(IF), Flood protection(FP), Drought Proofing(DP), Drinking Water(DW), Rural Connectivity(RC), Rural Sanitation(RS), Seva Kendra(SK), Other Public Works(OPW).

3. The regions were considered as following administrative classification as follows: North, East, West, South, Centre and North East region.

4. There was no explicit effort to select respondents based on gender and this aspect has not been considered in the study.

5. The study founds the assets that did not exist as Individual assets were mostly, horticulture crops, renovation of private ponds in individual land and land development works.

6. Convergence departments or line departments includes 29 departments for example, Rural Development, Forest, Public Works Department, Water and Sanitation Department, Agriculture department, Animal husbandry, horticulture department etc.

7.   The user perception was collected only for the assets related to water and land development assets on individual as well community-basis.

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