

# MGNREGA Works and Their Impacts

## A Study of Maharashtra

KRUSHNA RANAWARE, UPASAK DAS, ASHWINI KULKARNI, SUDHA NARAYANAN

This study reports on a survey of 4,881 users of more than 4,100 works created under the Mahatma Gandhi National Rural Employment Guarantee Act in Maharashtra. It provides evidence that MGNREGA works support agriculture, and benefit a large number of small and marginal farmers. An overwhelming 90% of the respondents considered the works very useful or somewhat useful, while only 8% felt they were useless. Further, most works continue to be maintained and are in a good condition. Overall, this study suggests that the widespread perception that the MGNREGA does not create anything productive appears to be misplaced, although there is scope for improving the choice of works, their design, and their execution.

This study was commissioned by the Department of Employment Guarantee Scheme, Government of Maharashtra, as an independent assessment of the works created under the MGNREGA in Maharashtra. We thank V Giriraj, S Muthukrishnan, and Vimala Ramesh for facilitating this study and S Mahendra Dev, Jean Drèze, and participants in a workshop at the IGIDR for valuable suggestions. Thanks are also due to a number of faculty members and students from various agricultural colleges across Maharashtra who participated in the survey and the interns who verified the data. We remain responsible for the contents of this paper.

Krushna Ranaware ([krushna@igidr.ac.in](mailto:krushna@igidr.ac.in)), Upasak Das ([upasakdas@igidr.ac.in](mailto:upasakdas@igidr.ac.in)), and Sudha Narayanan ([sudha@igidr.ac.in](mailto:sudha@igidr.ac.in)) are at the Indira Gandhi Institute of Development Research, Mumbai; Ashwini Kulkarni ([pragati.abhiyan@gmail.com](mailto:pragati.abhiyan@gmail.com)) is with Pragati Abhiyan, Nashik.

### 1 Introduction

The Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA), notified on 5 September 2005, was implemented in three phases, covering all districts in India over three years. Although the focus is on augmenting wage employment for unskilled labour, it is ambitious in scope and aims to accomplish a number of things. 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. While there is rich documentation of the impacts of the MGNREGA on outcomes such as wages and consumption, very little is known about the nature of the works created and their impacts on peoples' lives. Indeed, the MGNREGA is frequently thought of as a poverty alleviation scheme, and not much else. That it derives its legitimacy in part from being an asset-creation programme is often overlooked. When it is not, there is a widespread belief that the works created under the MGNREGA are of dubious usefulness.

Recently, researchers have begun to assess the impacts of MGNREGA works, focusing on environmental services and water resource availability (Esteves et al 2013; Verma and Shah 2012; Aggarwal et al 2012, for example).<sup>1</sup> Such systematic efforts are still relatively infrequent. One explanation for the paucity of studies assessing the impacts of MGNREGA works has been that it is too early for impacts to be visible. However, with seven 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 works in Maharashtra.

The following section outlines the approach and methods used in the study, and it is followed by sections on different aspects of MGNREGA works. The last section summarises the findings.

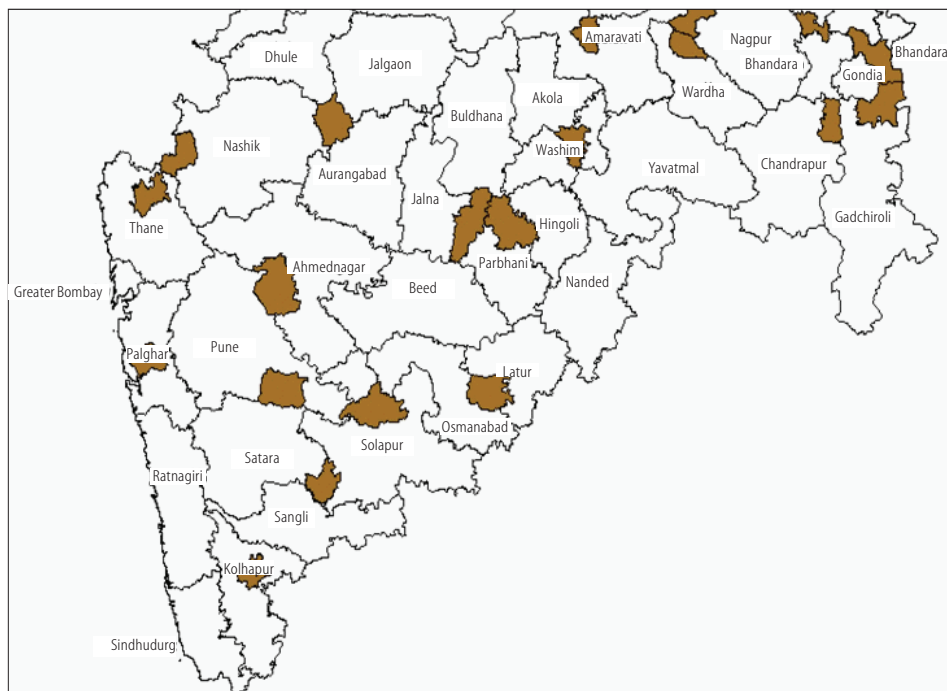
### 2 The Study: Sampling, Methods and Scope

This study sought to accomplish two goals. The first was to verify if the works purportedly created under the MGNREGA in Maharashtra do indeed exist, and to document their condition and quality. This was to address the concern that many of these works are only on paper. The second was to record perceptions on the impacts of these works through a systematic survey of beneficiaries, who were identified specifically for each work. We do not attempt to quantify these in terms of physiological phenomena or benefit–cost ratios, as several other studies have done. Instead, we focus on recording the

subjective assessments and perceptions of benefits and costs of users of these works.

We cover 20 districts in Maharashtra.<sup>2</sup> Although all districts are not represented in the sample, it does have districts from all the six administrative divisions in the state. It also reflects the diversity of rural Maharashtra in terms of socio-demographic, agro-climatic, and geographic characteristics. The sample districts accounted for 60% of the MGNREGA expenditure and 66% of the works generated in Maharashtra from 2010 to 2013 (Narayanan et al 2014). In each of the 20 districts, one block was sampled purposively to represent the best performing block in terms of expenditure on the programme in the financial year 2012–13 (Figure 1). In each of these 20 blocks, five gram panchayats (GPs) were selected for the survey, and these five GPs were the best performers in terms of the cumulative number of works created and completed under the MGNREGA from 2010 to 2013.

Figure 1: Sample Blocks



The sampling method explicitly favoured blocks and GPs that had been prolific in creating works, and are therefore not representative of all GPs in Maharashtra. This approach was essential because the objective was to understand the impacts MGNREGA works have on people, which is predicated on the works being there in the first place. The scope of the study is thus limited to exploring the usefulness of works and the type of works created, rather than assessing the implementation aspects of the MGNREGA.

In the sample GPs, the survey considered all works completed between 1 January 2010 and 31 December 2013. The rationale for choosing a three-year period was to be able to capture a combination of new and relatively old works. This would allow ascertaining their durability (or non-durability, as the case may be) and also ensure that they had time to yield benefits (especially horticulture and afforestation).<sup>3</sup> The

sample GPs accounted for 7.53% of all works in each block on an average—ranging between 1% in Jalgaon and Nashik districts and as high as 53% in Washim District.<sup>4</sup> The sample works comprised 5% of all the MGNREGA works completed in Maharashtra in 2010–13.

Sample households were identified for each MGNREGA work through different approaches, depending on whether they were on private or public land. For works on private land, the household of the landowner or of the person who operated the land was considered the beneficiary household, and interviewed (Table 1). For works on common property, the selection of beneficiary households was based on spatial delimitation criteria aimed at preventing an arbitrary choice of respondents. This entailed interviewing the two households that were either closest to the asset or possessed or operated land closest to the asset (see Narayanan et al 2014 for details). For the purpose of the survey, works created under the MGNREGA were

categorised and aggregated into a few broad groups (that do not necessarily map on to the government classification) with the aim of unambiguously separating works on public lands from those on private lands,<sup>5</sup> while ensuring that distinct types of works were captured through different questionnaires.<sup>6</sup>

The survey was conducted in February–March 2014 by 344 trained enumerators drawn predominantly from local agricultural colleges, organised into 20 teams with 40 faculty supervisors. The survey instruments, which were translated into Marathi, included a verification form, requiring teams to physically verify the asset, and household questionnaires for user interviews. These questionnaires

were constructed to elicit both the benefits and problems that users associated with a particular MGNREGA work. A community questionnaire covering various aspects of the GPs was also

Table 1: Who Benefits?

Characteristic	Data	Number of Valid Responses
(1)	(2)	(3)
Size of land owned by households that have any MGNREGA work		4,265
Mean (hectares)		2
Median (hectares)		1.62
Percentage of households with MGNREGA works on private lands who depend on agriculture (as farmer or worker) as a main occupation *		96
Percentage of MGNREGA works on private lands that are wells		77
Percentage of households with MGNREGA horticultural works who depend on agriculture (as farmer or worker) as a main occupation*		82

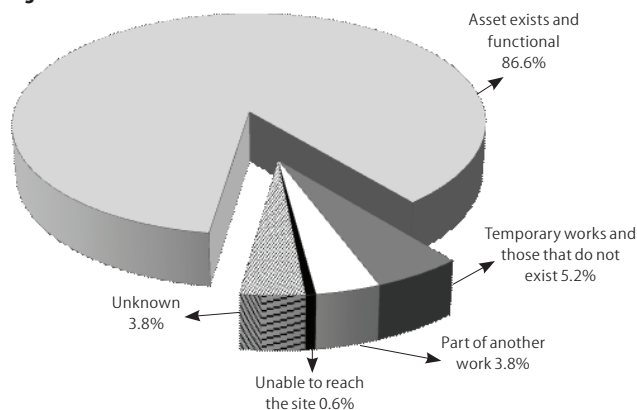
\* Includes only observations with complete data.

administered to understand the local contexts that were being studied. Overall, the survey included interviews with 4,881 beneficiary households and verification of 4,266 works spread across 100 GPs.<sup>7</sup> Of the respondents, around 15% were women.<sup>8</sup>

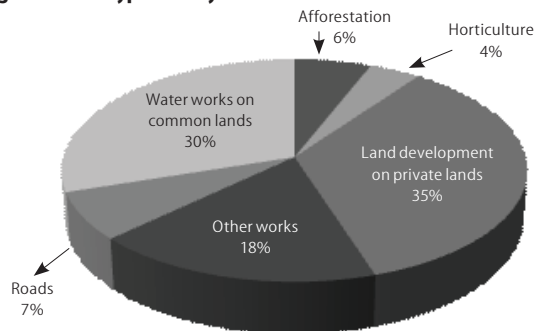
### 3 Assessing the Impacts

As mentioned, the overarching aim is to ascertain if the intended beneficiaries really do value these MGNREGA projects, in what ways, and by how much. This study relies on subjective perceptions of the usefulness of works on the premise that the

**Figure 2: Status of MGNREGA Works**



**Figure 3: Asset Types Surveyed**



beneficiaries can make considered judgments and will be able to offer a catch-all measure of the quality and usefulness of works created under the MGNREGA. This may vary widely, depending on the larger context of living conditions and/or whether a respondent has worked to create the asset in question. For example, a household in an inaccessible GP or one that has contributed effort might regard a road of a certain quality as being high quality and useful, relative to a household in a well-connected GP. Subjective measures thus entail challenges and limitations of their own, but from the perspective of the goals of this project, they seemed an appropriate approach. Nevertheless, they are best viewed as indicators that complement benefit–cost studies. But they do account for an important dimension of these works from a users' perspective. This study does not venture to judge whether these works conform to programme norms or technical specifications or whether they ought to be assessed as part of a larger cluster of works, for example, a watershed project.

For each work, we recorded, through field visits and pilot surveys, a customised set of benefits and problems that households associated with it. For example, contour trenching,

earthen and stone bunds, farm ponds, compartment bunding, and afforestation conserve soil and water. Land development, horticulture, and wells potentially support agriculture-based livelihoods and food security, while possibly stemming migration. Roads help promote overall activity in villages, and by providing increased access to markets, schools, and health services, potentially reduce the cost of human capital investments. Many works could generate conflicts over user rights and have negative ramifications. In the case of roads, even if they were small rural pathways leading to fields, they might pass through private lands, leading to loss of land or inconvenience to owners of these lands. Water structures involve a trade-off wherein the benefits of water harvesting, storage, and conservation entail a potential loss from not putting the land to an alternative use. Horticultural works might end up being so costly that they outweigh their benefits. To ensure that we captured user perspectives on the full range of issues that could arise from having a new work in place, we elicited perceptions on both benefits and costs.

### 4 Do MGNREGA Works Really Exist?

Of the 4,266 completed works in the sample GPs assigned for verification, the survey teams found that close to 87% existed and were in use (Figure 2). Of these, 43% were “largely public” works, while 57% were “largely private” works.<sup>9</sup> Of those that remained unverified, the teams were unable to reach some (0.06% of the surveyed works) because of paucity of time or other difficulties in reaching the location.<sup>10</sup> Enumerators were able to confirm 5.2% of the MGNREGA works assigned for the survey did not exist at the time it was carried out. This included both works that did not exist at all and those that existed at some point in time but were damaged either in floods or destroyed, suggesting that some, though by no means a majority, of works are non-durable. This, however, included works that were intended to be temporary. For example, nurseries faced a natural process of maturation. Another example was the *boribandh*, a low-cost, temporary sandbag structure used for seasonal water storage.

A few other works (3.8%) were identified as two separate works in government records with two different identifiers. This was due to three potential reasons. First, these could have been coding errors during the data entry process. In other cases, a single large work, constructed in parts, was counted as multiple works, each part counting as one work. Yet another possibility could be that the entry was part of a strategy for siphoning off funds. It is impossible to disentangle these three possibilities. The status of a further 3.8% of the works was unknown, all of them on account of errors in coding, missing data, and unclear entries. It is difficult to say with certainty how many of the surveyed works were “missing.”<sup>11</sup> It was clear, however, that in the sample GPs, most of the MGNREGA works did exist and were functional.

### 5 MGNREGA Works and Their Uses

Of the works verified to exist, an overwhelming proportion supported farming activities, directly or indirectly. Over a third were land development on private lands (Figure 3).

These works included land levelling (10%), wells (77%), farm ponds (9%), bunding (12%), irrigation channels (5%), and trenches (5%).<sup>12</sup> Horticulture constituted a small 4% of the total works, but along with the categories mentioned above constituted close to 70% of all works. A comparable share of works pertains to water conservation and harvesting on common lands. A majority of the water works on common lands comprised check dams, followed by bunds and dykes. Many works involved renovating existing structures, for example, desilting open wells and water storage structures. Afforestation works, roads, and other works (mainly household toilets) accounted for the rest.

The distribution of works across districts reflected the diversity of the districts, pointing to their varying priorities.<sup>13</sup> Bhandara's sample GPs accounted for a lion's share of all the afforestation works in the sample. In Bhandara, more than half of the works related to afforestation. Land development works on private lands showed a clear regional pattern with Solapur, Sangli, Pune, Ahmednagar, and Kolhapur accounting for 61% of all such works. Virtually all these were wells on private land. It appeared from the sample GPs that these wells were the most common type of work undertaken as part of the MGNREGA. Interestingly, this area is predominantly non-tribal and known for commercially oriented and enterprising farmers. Likewise, Vidarbha's sample districts, especially Wardha and Nagpur, dominate the "other works" category (mostly building household toilets).<sup>14</sup> That the individual benefit schemes are more likely to be in non-tribal areas (or works on common land in tribal areas) is not too surprising. Tribal regions have traditionally been participating in large numbers on employment guarantee scheme worksites, and common works are necessary to cater to the high demand for work.

With the other three work types, there was no discernible pattern. The five districts that showed the highest number of households reporting water conservation and water harvesting works were in Vidarbha's tribal region and from Marathwada.<sup>15</sup> These were in the high rainfall region and rain shadow region of the state, respectively. Similarly, in the case of horticulture, tribal Vidarbha and north Maharashtra showed higher shares than others. There did not seem to be any clear evidence to show whether the choice of works was primarily driven by villagers' aspirations, officials' initiatives, or agro-climatic conditions. It was likely a combination of all these.

### 5.1 Extent of Benefits

According to the administrative data, the works surveyed employed more than 200,000 people for more than 1.31 million person-days. In most cases, the beneficiaries themselves worked on these projects. Together, MGNREGA works pertaining to land development, horticulture, and water works on common lands were perceived by respondents to have had an impact on a gross area equivalent to 31,461 acres (at an average of 12 acres per work), while land development works, water works on common lands, and roads were estimated to impact 36,368 households.<sup>16</sup>

Water works on public lands impacted more land and households than works on private land, presumably because the public works were of a larger scale. Roads had the widest impact, as one would expect, with 53 households benefiting on an average from all the rural connectivity works surveyed. For horticultural works, the land devoted was typically fairly small, at about three-quarters of an acre, but the estimated annual net earning was close to Rs 58,000 at 2013–14 prices. Interestingly, even for works on private lands, there was a perception that for each acre of the beneficiary's land it benefited, another acre of someone else's land also benefited, underscoring the positive spillover effects of these works. This ratio was more than two in the case of water works on common lands.

### 5.2 Who Benefits?

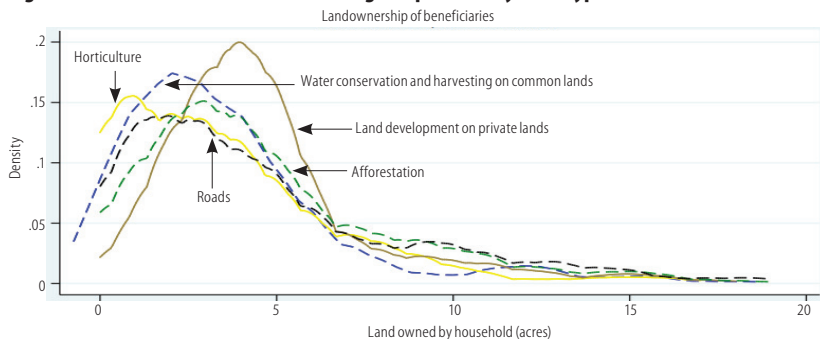
From the survey data, it is clear that the MGNREGA in Maharashtra is benefiting small and marginal farmers in keeping with the broad intent of the act. The average size of land owned by the sample households was two hectares, and the median landholding size was 1.6 hectares. Given that the sampling approach was based on spatial proximity and not explicitly pro-poor, this suggested that the households most likely to benefit from an MGNREGA work were farmers with either small or marginal landholding sizes. As for MGNREGA works on private lands, it was evident that 75% of these were on lands that belonged to small (53%) and marginal farmers (22%). Within this category, small farmer beneficiaries outnumbered marginal farmers, suggesting that the better endowed were more likely to benefit from MGNREGA works. This pattern was reinforced by the independent assessments of enumerators, which suggested a large proportion (59%) were from the middle 20% rather than the poorest or the richest two quintiles in villages. This was consistent with the notion that small farmers are more willing and able to devote a part of their land to land development works such as farm ponds and wells, while marginal farmers opt for land development works such as levelling, bunds, and so on. It could also reflect that small farmers are perhaps more aware of the possibilities of leveraging government programmes to make investments on their private land.

Thus, fears of elite capture of MGNREGA works, or large farmers and absentee landlords benefiting disproportionately from having MGNREGA works on their lands, appeared to be misplaced. That 92% of those who had MGNREGA works on private lands said that farming was their main household occupation (or 96%, if those whose main occupation is agricultural worker are included) suggests that in terms of creation of works, the MGNREGA has been pro-farmer. That said, 25% of the works were on lands owned by medium and large farmers, which raises questions on whether the selection criteria for works has been faithfully applied.

To probe this, we looked at the composition of beneficiaries across work types. Overall, it was evident that a majority of the beneficiaries of works that were typically on private property, such as horticulture, land development, water conservation and harvesting, and other works, owned very little land (Figure 4, p 57). Other works included mainly household toilets,

and the main beneficiaries were poorly endowed households (as measured by land owned). It appeared that horticulture on private land showed a more complex pattern (Figure 4). While

**Figure 4: Distribution of Size of Land among Sample Users by Work Type**



Kernel = epanechnikov, bandwidth = 0.7500

a significant proportion of the beneficiaries were marginal farmers, there were some medium and large farmers among them. Larger farmers were perhaps more likely to seek horticultural investments, both relative to marginal and small farmers and relative to other land improvement works.

In contrast to works on private lands, the beneficiaries of works on public lands, including roads, afforestation, and water conservation and harvesting structures, belonged to

**Table 2: Profile of Beneficiaries of Land Development and Horticulture Works**

Characteristic	Land Development (on Private Lands)		Horticulture (Largely on Private Lands)	
	Data	Number of Valid Responses	Data	Number of Valid Responses
Number of works	1,346		299	
Percentage of MGNREGA works that belong to small farmers (<=2 hectare)	53	1,307	13	299
Marginal farmers (<=1 hectare)	22		28	
Scheduled Caste households	7	1,299	11	289
Scheduled Tribe households	6		28	
Other Backward Classes households	24		34	
Bottom 40% of the poor*	21	1,280	39	278
Top 40% of wealth category*	17		10	
Middle 20%*	61		51	

\* This is according to the investigator.

different classes of rural households. While a significant number of them selected for the interview were smallholders, the sample also had a number of medium and large farmers. It is not possible for us to make comparable interpretations for public works and who benefits since our sampling method necessarily represents a small proportion of all the beneficiaries. Indeed, for public works such as roads, one would expect that the benefits are virtually universal.

A disquieting pattern was the relatively low representation of Scheduled Caste (SC) and Scheduled Tribe (ST) beneficiaries in works on private land, at 7% and 6%, respectively (Table 2). Even including Other Backward Classes (OBC), the beneficiaries were only 37%. This could partly reflect the distribution of works on private land across districts where non-tribal blocks, such as those in Pune, Sangli and Solapur, account for a majority of the works on private land. That does not, however,

explain the large proportion of people from privileged communities benefiting from works on private land. This pattern does not carry over to horticulture, which benefits a relatively larger proportion of ST households. Given, however, that land development works are large in number, this is a cause for concern.

These data raise important questions on the implementation of the eligibility criteria. For instance, when households that had horticulture works on private lands were asked if there were specific eligibility criteria, only a small fraction seemed to think that there were any criteria at all. A majority felt that there were no selection criteria based on caste, landholding size or other factors such as being Indira Awaas Yojana (IAY) beneficiaries or below the poverty line (BPL) households. The general understanding appeared to be that a facility for irrigation was required; more than 43% mentioned this as a relevant criterion. It also appeared that many BPL households were urged to use the MGNREGA by village functionaries, rather than people proactively demanding such works, as the act envisages it.

**5.3 How Useful Are the Works?**

Overall, more than half the respondents found the works created “very useful.” Around 40% found them “somewhat useful.” So, more than 90% viewed the MGNREGA works in a favourable light. Remarkably, only 8% of all the respondents felt that they were useless or had negative repercussions. This included those who said they did not care.

As one would expect, works largely on private land had a much higher proportion reporting that they were very useful (63%), compared to works on public land (40%) (Table 3). Respondents were likely to have a greater stake in works constructed on their land, and even invested in maintaining the asset and putting it to good use. It was also possible that households requested works to be built under the MGNREGA that would be most useful to them. In the case of public works, worries about maintenance costs and perhaps a missing sense of ownership were the reasons half the respondents found them only “somewhat useful.”

Despite the general pattern, there was much variation based on the type of works (Figure 5, p 58). In the case of roads, virtually half the respondents found them to be very useful because their benefits were

**Table 3: Assessment of Usefulness**

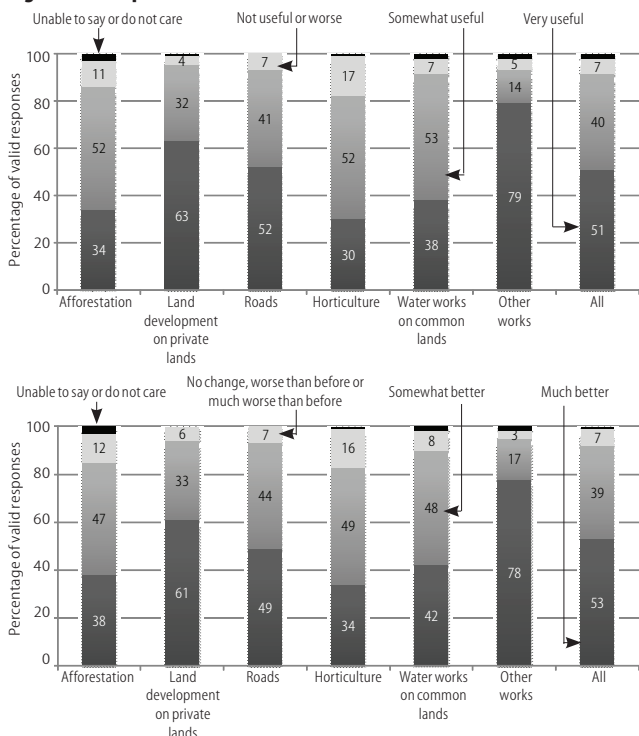
Percentage of Households Surveyed That Said Asset (is)	In %	Number of Responses
<b>All Works</b>		
Very useful	51	4,767
Somewhat useful	40	4,767
Not useful and others*	8	4,767
<b>Private works*</b>		
Very useful	64	2,257
Somewhat useful	29	2,257
Not useful and others**	7	2,257
<b>Public works*</b>		
Very useful	40	2,510
Somewhat useful	50	2,510
Not useful and others**	9	2,510

\* Private works include the following work types—land development on private lands, horticulture, and other works, while public works include water conservation and water harvesting works on common land, afforestation, and roads.

\*\* Others include the following responses—“Has made things worse for me,” “Has been the worst thing that could happen to me,” “Unable to say,” and “I do not care if it is useful to me or not.”

immediately experienced (Table 4). In contrast, the benefits associated with works such as water harvesting had longer gestation periods. Land development and other works were found to be “very useful” by 63% and 79%, respectively, of the respondents, suggesting a relative ease of accruing benefits from these kind of works and greater incentives for having private works. An exception was horticultural works, where

Figure 5: Perceptions of Usefulness



52% of the respondents found them to be “somewhat useful” and only 30% “very useful.” Maintenance costs and labour demands are quite high, and this perhaps was a factor. Another possible reason is that horticulture works under the current MGNREGA have been implemented only in the last three years and it is possible that there are still some teething issues.

5.4 On the Nature of Benefits

The survey provided evidence that many of the works created under the MGNREGA represented new and substantive additions to the resource base and infrastructure. While some works involved new constructions, others represented extensions or additions, aimed at improving the functionality of existing works.

On water conservation, harvesting, and drought-proofing, a wide range of uses and problems was cited, reflecting the variety of people in this work category (Figure 6, p 59). An overwhelming majority of respondents suggested that they had been able to expand the area under cultivation, irrigate hitherto unirrigated plots, or grow an extra crop where they had previously left the land fallow. Others felt that it provided more control over water and assured timely availability of water. All these represented various ways in which MGNREGA works support agricultural activities. The increase in water access has perhaps been an enabling factor, with many users

claiming that they had been able to diversify into horticultural crops, improving both cash income and enabling access to more diverse diets. Many works, especially on common land, involving impounding water, have assisted in making water available for longer durations and increasing the proximity of communities to water. The chief manifestations of these benefits are the increased availability of drinking water, and water to maintain livestock. Several claimed that the availability of water enabled them to raise fish in ponds on private land. Often, users were able to use MGNREGA works in their fields as stepping stones to expanding their farming activities, such as moving into pisciculture or diversifying to horticulture (see Narayanan et al 2014 for examples). A large majority of the respondents cited saving on fertilisers and pesticides because of levelling land and a reduced run-off. As for channels, many mentioned less waterlogging because of better drainage.

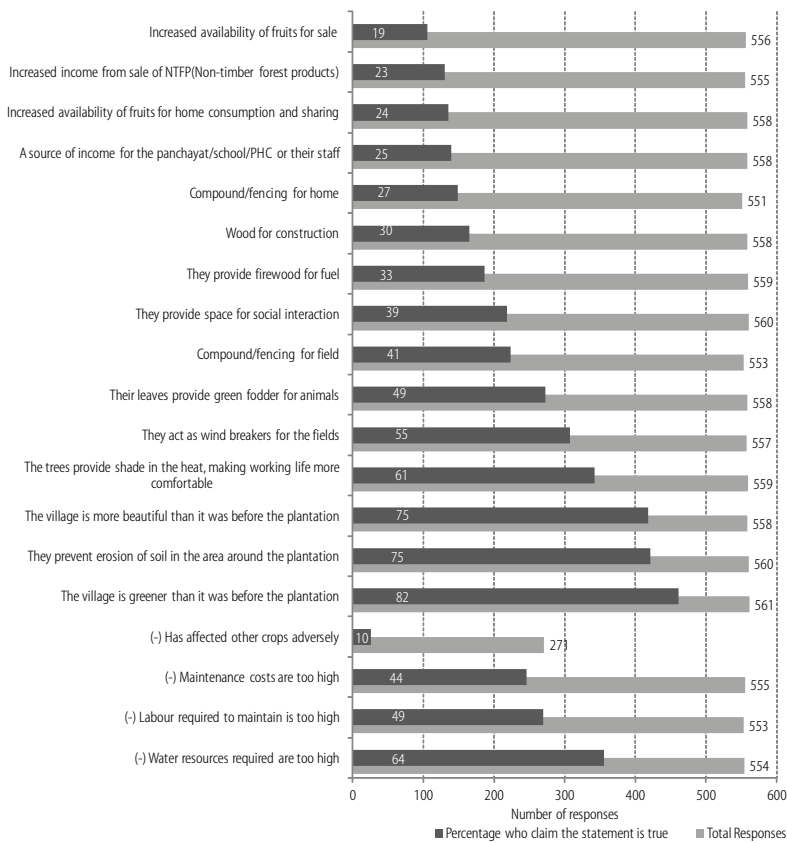
Overall, fewer claimed groundwater recharge had improved than those who said overall water availability had improved. From users’ perspective, MGNREGA works had not had visible or tangible effects on the level of water in wells or soil fertility, or for that matter yields. A cautionary note is that a few people believe that things were in a better state before the MGNREGA, often because the work is incomplete or flawed in design. Even if small, this points to an area deserving policy attention. A related concern is that the construction of wells needs to be rationalised in areas where groundwater recharge is threatened beyond thresholds of sustainability. The chief burden of the additional resources created by the MGNREGA works appeared to be maintenance and increased hours in the field,

Table 4: Asset Quality, Condition and Maintenance

	In %	Number of Responses
Quality of the asset		
Of acceptable/adequate quality	44	4,767
Quite good	37	4,767
Excellent	8	4,767
Quite bad	5	4,767
Extremely bad	3	4,767
The problems with works		
Proportion of households who say the work is “incomplete”	16	4,757
Among those who think the asset is of acceptable quality or better		
Proportion who think the asset has faulty design	7.7	1,185
Too early to tell	9.5	1,186
Other reasons	8.8	1,188
Among those who think the asset is of bad quality		
Proportion who think the asset has faulty design	27.5	178
Too early to tell	26.1	180
Other reasons	39.2	181
Who maintains the asset?		
Owner of the work	36	4,015
Panchayat	42	
Collectively by users	6	
Unsure or not aware	10	
No maintenance is required	1	
Not maintained by anyone	6	
Repairs		
Percentage of households who report that the asset was repaired/replaced or renovated	16	4,446
Of these, the median number of times the asset has been repaired	1	

All percentages are computed on the number of valid responses.

**Figure 6: Benefits and Problems of Land Development Works on Private Lands and Water Works on Common Lands**



presumably because improved water availability generated more farm-based activities.

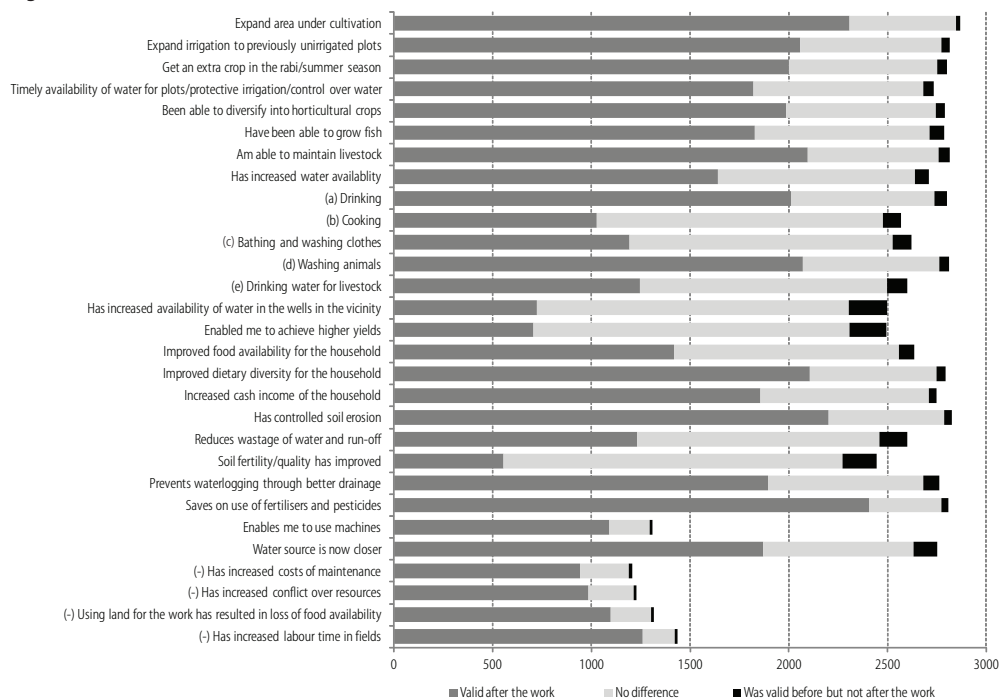
The extent to which households associated benefits with afforestation and horticultural works was less than for water structures (Figure 7). Most believed that villages were greener and more beautiful. In terms of functionality, close to three-quarters saw a connection between planting trees and soil erosion. Relatively few reported benefiting from the sale of fruits and vegetables, or non-timber forest produce (NTFP). It is possible that it is too early for these benefits to materialise, but it is also possible that these works are very hard to maintain. There were some afforestation works that were perceived to be very useful, as the cultivation of medicinal herbs in Gadchiroli or a forest department-led agroforestry initiative in Raigad, but it appeared that the afforestation works in the sample GPs

were not as systematically planned or maintained. As per the survey, users estimated that on average only six of 10 plants tended to survive, which compares favourably with many afforestation programmes worldwide and many wadi programmes in the country. Close to half said the maintenance costs and labour requirements were too high, and an even greater proportion (64.3%) said the water requirement was too high. Overall, this was consistent with the fairly low proportion of households who claimed these works had been transformative in some way. At the same time, the good examples suggest there is scope for this type of work.

Rural connectivity is an important type of MGNREGA work. Roads built ranged from a few hundred feet (250 feet to 300 feet) to as long as 3 kilometres, and comprised pathways to the fields, *anganwadis* or cremation grounds and larger roads connecting hamlets. These roads serviced 53 households each on an average, benefiting at times just a single household and at other times an entire village of more than 3,000 households, suggesting that the nature of these works was fairly heterogeneous. Different agencies were involved in building these roads—GPs, block development offices and the public works department, among others.

Of the 481 households sampled for perspectives on road works under the MGNREGA, we obtained 437 valid responses. A third of households stated that the road work under the MGNREGA was for *kaccha* (temporary) roads, while the rest claimed that it was for gravel, cemented or

**Figure 7: Benefits of Afforestation and Horticultural Works and Concerns about Them**



tarred roads. There was a perception among some sections that many of these roads were washed away or were of poor quality. More than two-thirds of the households surveyed, however, felt that the road constructed as part of the MGNREGA was an all-weather one and was usable at all times. Of those who claimed that roads were unusable, a greater proportion were speaking of unmetalled roads (56%), compared to surfaced roads (23%). A handful of people reported that they were unable to use all-weather roads because of caste issues and other disputes, a significant problem in many regions in the country.

Despite these statements, roads seemed to represent a distinct contribution to village infrastructure. More than 56% of the respondents said that kachha roads had come up where there were none, or had replaced scrub or small footpaths; compared to 38% who said they replaced other kaccha roads. About 96% of the metalled roads replaced kaccha or gravel roads, with a third of them replacing footpaths and scrub trails. These were indications that road works under the MGNREGA contributed to an improvement in rural connectivity. Close to 85% of the respondents claimed that they were able to use a different mode of transportation—this was true irrespective of the current surface of the road. For example, this was equally true of gravel and kaccha roads, as of metalled roads. Virtually 87% of the respondents reported using these roads every day, with 11% using them three or four times a week, or less frequently, and 2% claiming they never used a road because of waterlogging. A few did say a road got washed away (11 respondents). In some communities, MGNREGA roads had become a lifeline because they had earlier remained cut off during the rainy season.

Toilets too generated very positive responses. Among those interviewed, more than 90% stated that women had safer access to sanitation, and that villages had become cleaner with a reduction in open defecation. Around 88% said that there had been no one place for defecation before the toilets were constructed.

## 6 Condition of Works and Maintenance

One shared and oft-voiced concern pertains to the quality of MGNREGA works and their maintenance, which derives from a perception that they are of very poor quality and not durable. Judgments of quality in a technical sense can be made on the basis of design specifications, the quality of materials used, and so on. In this study, we capture the perceptions of users on quality—their own ideas of what they consider of unacceptable or poor quality. Perceptions of quality in the context of this study are inevitably linked to perceptions of usefulness, and depend therefore on pre-existing conditions. So too, perceptions of usefulness of public works could differ systematically from those for works on private land.

Of the works verified to exist, the survey revealed that an overwhelming proportion of households viewed the asset positively. An approximately equal share of responses (44%) indicated that the works were either quite good or excellent or of acceptable quality. Predictably, the proportion of households who rated an asset as excellent was somewhat low (8%). Likewise, only 8% of the responses deemed an asset to be of bad quality.

Considering that the works were created over 2010–13, the very low proportion of responses stating they were of poor

quality suggests that many of these works might be somewhat durable. Around 15% of the respondents claimed that the asset in question was repaired, with around half of them suggesting that it was repaired once, and the rest claiming that it was repaired more than once. Only 6% of the respondents explicitly said that works were neglected and not maintained. As one would expect, public works tend to be maintained by the GP, while owners of the land typically maintain private works. A few of the common works were to be maintained collectively by users, which indicated that these households saw themselves as stakeholders and were willing to invest the effort to maintain these works.

Despite the largely positive views on the condition of assets, there were problems with these works. Among those who declared that the works were not particularly useful or even that it had left them worse off, more than a quarter (27%) believed that the design was faulty. Almost two-fifths perceived these works to be too small or too big, or not complete in the sense that they had imagined it and in poor condition. A quarter, however, claimed that it was too early to tell. Even among those who found works useful, close to one-tenth qualified their response by saying it was too early to tell, while a comparable proportion pointed out that the design was faulty or that the work's size or state of completion was not satisfactory. These responses suggest a vast scope for improvement in design, if not in execution. It may be recalled that 5.2% of the works did not exist at the time of the visit, many of which appeared to have been damaged or washed away. For this set of works, quality and the related attribute of durability was definitely an issue.

There seemed to be no distinct regional patterns, and indications were that the condition of an asset had probably more to do with ownership and stakeholder participation. It did not seem, on the face of it, that the technical departments of different regions influenced this outcome significantly, in the sense that they seemed to be equally good, bad and average across the state.

An interesting, but perhaps unsurprising, finding of the survey was that there was a strong correlation between the perceived usefulness of a work and the extent to which respondents believed they had played a role in the decision-making process (in gram sabhas, the panchayat or by government functionaries). It was apparent that where the decision-making process rested with the community and where the respondents felt they had played a role, these assets were rated not only as more useful but also as being instrumental in improving their lives. One pattern was that works on private lands were rated as being in a better condition and more useful than those on common lands. Works on private lands had natural custodians who had a stake in ensuring the asset was maintained. It was also the case that the choice of the asset would have been the most useful one for the household in question.

## 7 Conclusions

This study speaks of the many common preconceptions on the MGNREGA's ability to create useful assets. Whereas the MGNREGA is perceived to be anti-farmer because it employs



workers in large numbers, the survey suggests that the works are pro-agriculture and primarily benefit small and marginal farmers in significant ways. The widespread perception that the MGNREGA does not create anything productive or that many of its works exist only on paper appears to be exaggerated, with a majority of respondents suggesting that the assets are somewhat or very useful. Another perception, that MGNREGA assets are non-durable, is not entirely true either.

Many works, including those on public land, appear to be maintained regularly, if not by local governments, by users themselves. There is merit, however, in the argument that greater attention to design and maintenance can go a long way towards ensuring that works rated as good now get better. Efforts to foster local participation, more careful selection of works, and a better design would ensure that the MGNREGA is effective in supporting livelihoods.

## NOTES

- 1 Other studies include Chakraborty and Das (2014); Bassi and Kumar (2010); IIS (2013); ILO and DA (2009); Tiwari et al (2011). For an annotated bibliography of other studies, see MoRD (2012).
- 2 The original intent was to cover all the districts in Maharashtra. But an inadequate number of survey teams made us restrict the study to 20 districts.
- 3 In the context of this study, durable assets are understood to be those that do not get washed away or are damaged seasonally, and has a life beyond a year.
- 4 The sample GPs account for 6% of all GPs in the sample blocks. In some sample blocks, they are 3.6% of all GPs and in others 12%. In Gadchiroli district, one GP was in a politically sensitive zone and it was replaced with the GP that was next on the list of most works completed over 2010–13.
- 5 This was not always possible since works sometimes straddle private and public lands. Nevertheless, we use this nomenclature for the rest of the report. This also ensures that should there be any errors in the coding of asset type in the Management Information System (MIS), we are able to assign the correct asset type rather than carry over these errors into the analysis. For example, a water conservation work on public land might be erroneously classified as other work. In the survey, we classify it as a water conservation work on public land.
- 6 Administrative data classify works into the following categories—drought prevention/drought proofing (DP), irrigation facility (IF), land development (LD), rural connectivity (RC), water conservation (WC), water harvesting (WH), rural sanitation (RS), and *sahayata kendra* (SK). For this study, six broad classifications—afforestation, horticulture, WC/WH on common land, land development on private land, roads, and other works—have been used. They map across the administrative categories and depend on nature of work and the ownership of land on which the work has been undertaken. To illustrate, a DP work in the administrative data may fall under the afforestation or horticulture or WC/WH on common land categories. The decision to classify a work was made on the basis of the work description in the MIS, physical verification of the work, and/or an informal conversation with the *gram rozgar sevak* (GRS) or village functionaries.
- 7 In the sample GPs, 5,265 works were completed under the MGNREGA between 1 January 2010 and 31 December 2013. Of these, 5,189 were included as works to be surveyed, for which we were able to obtain data for verification. But only 4,266 were assigned to the survey teams for verification for the following reason. While all works were to be surveyed in the sample GPs, in Thane, only a third of all works were included. Here, total works were three times that of all the other sample blocks. Out the 4,266 works, only 4,103 were verified, in the sense that the enumerators were able to determine their exact status. The rest remain unverified for a number of

reasons that are discussed later. For the rest of the study, we confine our discussion to only those works that were verified.

- 8 There was no explicit effort to select respondents based on gender, and this aspect is not in the purview of the work.
- 9 Largely public works include afforestation, roads, and water conservation and water harvesting on common lands. Largely private works include horticulture, land development on private lands, and rural sanitation.
- 10 This could be either because survey teams were able to ascertain locations for these works but were not able to visit them, or that these works did not exist and survey teams were told that it was too far away.
- 11 The survey did identify missing works, for instance, in Chandrapur District, where some toilets purportedly built under the programme could not be found. Such instances were relatively rare.
- 12 These are all proportions of private works. They exceed 100 because a work might be composite involving more than one type of structure.
- 13 This is not self-evident. In many states, there is often a top-down approach that prioritises some work types, for example, wells in Jharkhand or work on SC/ST land in Andhra Pradesh.
- 14 Vidarbha comprises Bhandara, Chandrapur, Gadchiroli, Gondia, Nagpur, Wardha, Akola, Amravati, Buldhana, Washim and Yavatmal districts.
- 15 Marathwada comprises Aurangabad, Nanded, Parbhani, Latur, Beed, Hingoli, Jalna and Osmanabad districts.
- 16 For land development works on private lands, water works on common lands and horticultural works, each respondent was asked how much of his or her land was “impacted” by the work. They were also asked how much land belonging to other households was impacted by the work, and to account for spillovers even in the case of works on private land. Finally, they were asked how many households benefited overall from the work. For works such as roads, afforestation, and other works (rural sanitation) only the last question was posed. We have chosen to ignore the benefits accruing to households exclusively through employment on these works. For works on private lands, we have only the owner responding to the questions. In the case of public works, however, we have a response from each of the households sampled for the particular public work. We have chosen the more conservative approach of using the minimum value for the particular asset when there is more than one respondent.

## REFERENCES

- Aggarwal, Ankita, Aashish Gupta and Ankit Kumar (2012): “Evaluation of NREGA Wells in Jharkhand,” *Economic & Political Weekly*, Vol 47, No 3.
- Bassi, Nitin and M Dinesh Kumar (2010): “NREGA and Rural Water Management in India: Improving the Welfare Effects,” Occasional Paper

No 3-0910, Institute for Resource Analysis and Policy, Hyderabad, [http://www.indiawaterportal.org/sites/indiawaterportal.org/files/NREGA\\_rural\\_water\\_management\\_India\\_Improving\\_welfare\\_effects\\_Occasional\\_paper\\_Dinesh\\_Kumar\\_et\\_al\\_IRAP\\_2010.pdf](http://www.indiawaterportal.org/sites/indiawaterportal.org/files/NREGA_rural_water_management_India_Improving_welfare_effects_Occasional_paper_Dinesh_Kumar_et_al_IRAP_2010.pdf)

Chakraborty, Banhi and Sutapa Das (2014): “MGNREGA and Water Management: Sustainability Issues of Built Forms of Rural India,” *Journal of Construction in Developing Countries*, Vol 19, No 2.

Esteves, Tashina, K V Rao, Bhaskar Sinha, S S Roy, Bhaskar Rao, Shashidharkumar Jha, Ajay Bhan Singh et al (2013): “Agricultural and Livelihood Vulnerability Reduction through the MGNREGA,” *Economic & Political Weekly*, Vol 48, No 52.

IIS (2013): Synthesis Report on “Environmental Benefits and Vulnerability Reduction through Mahatma Gandhi National Rural Employment Guarantee Scheme,” Indian Institute of Science, Bangalore, [http://nrega.nic.in/Netnrega/WriteReaddata/Circulars/Report\\_Env\\_Benefits\\_Vulnerability\\_Reduction.pdf](http://nrega.nic.in/Netnrega/WriteReaddata/Circulars/Report_Env_Benefits_Vulnerability_Reduction.pdf)

ILO and Development Alternative (2009): “NREGA: A Review of Decent Work and Green Jobs in Kaimur District at Bihar,” International Labour Organisation and Development Alternative, [http://www.ilo.org/wcmsp5/groups/public/-asia/-ro-bangkok/-sro-new-delhi/documents/genericdocument/wcms\\_142539.pdf](http://www.ilo.org/wcmsp5/groups/public/-asia/-ro-bangkok/-sro-new-delhi/documents/genericdocument/wcms_142539.pdf)

MoRD (2012): “MGNREGA Sameeksha: An Anthology of Research Studies on the Mahatma Gandhi National Rural Employment Guarantee Act, 2005, Government of India,” Ministry of Rural Development, New Delhi.

Narayanan, Sudha, Krushna Ranaware, Upasak Das, and Ashwini Kulkarni (2014): “MGNREGA Works and their Impacts: A Rapid Assessment in Maharashtra,” Working Paper WP-2014-042, Indira Gandhi Institute of Development Research, Mumbai.

Tiwari, Rakesh, H I Somashekhar, V R Ramakrishna Parama, Indu K Murthy, M S Mohan Kumar, B K Mohan Kumar, Harshad Parate, Murari Varma, Sumedha Malaviya, Ananya S Rao, Asmita Sengupta, Ruth Kattumuri, N H Ravindranath (2011): “MGNREGA for Environmental Service Enhancement and Vulnerability Reduction: Rapid Appraisal in Chitradurga District, Karnataka,” *Economic & Political Weekly*, Vol 46, No 20, pp 39–44.

Verma, S and Tushaar Shah (2012): “Beyond Digging and Filling Holes: Lessons from Case Studies of Best-performing MGNREGA Water Works,” IWMI-Tata Water Policy Programme, [http://www.iwmi.cgiar.org/iwmi-tata/PDFs/2012\\_Highlight-42.pdf](http://www.iwmi.cgiar.org/iwmi-tata/PDFs/2012_Highlight-42.pdf)

## Style Sheet for Authors

While preparing their articles for submission, contributors are requested to follow EPW's style sheet.

The style sheet is posted on EPW's web site at <http://www.epw.in/terms-policy/style-sheet.html>

It will help immensely for faster processing and error-free editing if writers follow the guidelines in the style sheet, especially with regard to citation and preparation of references.